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The World as Imagination

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The
World as Imagination

(Series I)

By

Edward Douglas Fawcett

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"There is a Mysticism which starts from the standpoint of the understanding, and only departs from it in so far as that standpoint shows itself not to be ultimate, but to postulate something beyond itself."

Professor M'Taggart.

TO "NUT"

Preface

"IDEAS," coloured by emotions, "rule the world." The crisis through which Europe is passing is, above all, the fruit of false ideas; false conceptions of the standing of the individual, of the State, and of the meaning of the World-System regarded as a whole. Sooner or later a reconstruction of philosophical, religious, ethical, etc., beliefs, in the interests of ourselves and our successors, will be imperative. *The World as Imagination* is simply an experiment in this direction; that of bettering thought about the more important problems of life. Experiments of the kind will be numerous; and, in the end, let us hope, one or some of them will hit the mark.

KESWICK, *July* 1916.

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The World as Imagination

Part I

INTRODUCTION

§ 1. THERE is philosophy which is content with organising the various departmental sciences that further our knowing and doing. It aims at width, at sweeping generalisations, at the "unification of knowledge," treats, accordingly, the sciences as contributory to an inclusive whole. It ignores, withal, ultimate problems, avows indifference as to what, in last resort, Reality may be. This is not the kind of philosophy that will concern us here.

Experimental metaphysics.

Interested, of course, in this ideal of width, we are to confront, also, ultimate problems; are to moot hypotheses as to the *basic character of Reality, of the Universe*, or, as some may prefer to call it, "Multiverse."[1] More briefly, we are to discuss metaphysics. In doing so we shall avoid the theological attitude—that of thinking under the restrictions prescribed by tradition. We have no call to fight for "certitudes." We shall be making only certain *experiments*, imitating the procedure of a world-

[1] William James coined this useful, if odd, word. Modern Pluralism seems to require it.

order itself, as we shall suspect, experimental and infected by chance. There is scope still for initiative in metaphysics. Some may object that the competing hypotheses in this field are too numerous already, and that it is a mistake to complicate the conflict yet further. The objection is not without weight. Never, perhaps, before in the history of thought have there raged such disputes. The offensive is general. Let the reader but glance through the representative and controversial pages of *Mind*! True, our modern thinkers take joy sometimes in humble themes, and then for a while there is established a truce of God. They dwell, it seems, amicably on topics such as the "discrimination of articulate sounds by raccoons."[1] But such amenities are few, for philosophy, alas! cannot live by raccoons alone. And it is when we pass to consider enterprises of moment that we notice how serious the antagonisms of leading modern philosophers really are.

Thus between the monistic Idealism of Bradley and the pluralistic Realism of Bertrand Russell, with its world "composed of an infinite number of independent entities with relations which are ultimate, and not reducible to adjectives of their terms or of the whole which these compose,"[2] there yawns an abyss. And in the abyss itself there are many other fastnesses, each held by an obstinate thought-lord at war with a thousand peers. Verily, if, as Hegel urged, Dialectic on a cosmic scale is at work, the net resulting profit to truth seems woefully small. Presently we are to cast our own ἐμπειρι-

[1] *American Journal of Psychology*, "On the discrimination of articulate sounds by raccoons."

[2] *Principles of Mathematics*, Preface, viii.

mental propositions into this turmoil of views. The working supposition, arrogantly hopeful, is that they are the best available hypotheses which thought can supply. Let us add with due modesty that the best available hypotheses may leave very much indeed to be desired.

Philosophy and Religion.

§ 2. Philosophy, as poor old Tertullian rightly averred, is "the father of all the heresies." Those who desire it to speak the language of a particular faith will do well to avoid these pages. The subject of religion will task us in its proper place. For the present I suggest that the popular creeds, Eastern and Western, subserve, in the main, practical needs, emotional, ethical, and social, rather than truth.[1] Teaching which may be excellent, nay indispensable, for mankind during, at any rate, certain stages of progress, may have, withal, very slight intrinsic value for philosophy. And primarily, be it repeated, our concern is (not with a particular religion, good or bad, but) with the character of Reality at large. We are interested in the Universe, not merely in one of its incidents, in Hinduism, or Buddhism or Christianity, etc, episodes in the time-flux that may pass as a tale that is told.

On the advance contemplated in the present essay.

§ 3. In writing the present book I am carrying out a promise made in *Mind* (vol. xx., N. Series, pp. 208 *et seq.*) in the course of an article, "The Ground of Appearances," based on a paper read before the Philosophical Society at Oxford in 1910. Readers of my *Individual and Reality* will recall the discussions as to the nature of the "*Ground*," *i.e.* that *Universal Psychical Life* which at once transcends,

[1] Cf. *Individual and Reality*, pp. 3–9.

and is immanent in, Nature and conscious individuals. In so far as it is *transcendent*, this Ground is a gnostic version of what agnostic Spencer, with a blithe refusal to be consistent, called the "Unknowable." It is said to resemble the reality which knows itself directly in ourselves. But the gnosticism is still far from being satisfactory. A "Universal *Life*," even though psychical in character, and treated with the daring that marks my book, seems too vague a concept. (A like criticism, of course, applies to Bergson's kindred concept of Supraconscious "*Life*"). I was led, therefore, to consider whether I could not conceive this "Life" in a more true and adequate way. There was born the hypothesis that this "Life" or Ground is IMAGINATION. It remained to attempt, on this supposition, some account of the romance investing the story of Nature and individual life.

The passage, cited from *Mind*, runs (with certain alterations) as follows :—

"The aim of this hypothesis is to indicate more precisely than heretofore the way in which the activity of the Ground, regarded as the power which transforms itself into Nature and individuals, ought to be conceived. Dr Schiller has told me that this hypothesis is not new, that it has been discussed in a German work of which I have not retained the name.[1] However, I have no particular interest in

[1] The reference was to Frohschammer. See Part II. Chap. I. §§ 22–32, where I have dealt with the History of the Hypothesis. It is not, however, the case that Frohschammer adopts "Phantasie" as the Ground of *all* reality. "Phantasie" is only a principle of movement and construction, along with other ultimates, in a syncretistic metaphysics.

the supposal in the hope that it may be new ; I am much more moved by the likelihood that it may possibly be true. Take heed that there is no call to shy at its (to some) paradoxical aspect. Philosophy, as Lord Haldane observes, progresses by way of hypotheses 'tentatively applied and afterwards tested by and adapted to the facts of experience.' The hypothesis of the World as Imagination requires no more considerate handling than is allowed by this writer.

"It is contended that the attempt, made hesitatingly and unconvincingly by Plato and Aristotle, and much more plausibly by Hegel, to find Ultimate Reality in 'Reason' is one of the great mistakes in the history of philosophy. Hegel's 'romance of the infinite,' as Renan calls it, served to elicit incidentally much superb thinking. But the worship of the 'Notion' has ended by revealing the 'Notion's' defects. The richness of concrete things was thrust somehow into the background—there resulted the suspicion of a concealed dualism, with the position of one factor therein, viz. sensible multiplicity, left obscure, and by degrees the artificiality of this arid intellectualism has made itself fully felt. Belief in the 'Notion' as more than an invention or acquisition *post rem* is now menaced. Observe, by the way, that the attempt to articulate thought on Hegelian lines leads to disaster when 'afterwards tested by and adapted to the facts of experience'—I am using Lord Haldane's words again in a novel connection. The 'contingency' held by Hegel to colour Nature — the 'bacchantic' god — and history marks the refusal of reality to accept the hypo-

thesis of the dialectically articulated Universals of 'Reason.'

"The Ground cannot, of course, be regarded as Will. Will is altogether too thin an abstraction, even were there not other and insuperable objections to this line of thinking. And there are those who may urge that it is idle to liken the Ground to any aspect of the processes of our psychical life. But if we are inclined to trace a resemblance between the Ground and human mentality, we shall do well, perhaps, to conceive the former as Imagination. For note that from Imagination it seems practicable to derive all appearances, while if you try to 'deduce' anything (*e.g.* Krug's famous pen) effectively from Reason or Will, or from a unity of a Logical Idea and Will, and the like, you fail utterly. Thus when Schelling discussed Nature as unconscious 'immature intelligence'—there being supposed a giant cosmic reason which lies petrified in objective being—he was on a wrong tack. For the processes, which are named, and too often hypostasised as, 'intelligence,' imply a highly selective attention and are far removed from that concreteness which Nature presents. But if Nature be viewed as a phase of the ever-changing cosmic imagination—why, then, you have all its living detail, storm, and stir fully provided for! Real Nature is not the ridiculous phantom of 'extensions,' 'resistances,' and 'energies' so dear to scientific fiction. It is not simple but indefinitely complex, and it is aglow with the so-called 'secondary' qualities. We need to seek patiently for the secrets of the inmost shrine, but we are sure that Cosmic Imagination can house all possible detail however complex. Note that in

Hypothesis of the Cosmic Imagination.

this Imagination-Nature we can place the concrete psychical equivalents, rich with 'secondary' qualities, of all the validly inferred 'ultimates' of speculative physics and chemistry.[1] And so on. In the regard, then, of Nature we may well suppose Imagination as the primeval reality, itself unresolved, into which all else can be resolved; and, in place of a dead 'intellectual' schematism, we can appeal to a principle of a plastic and creative sort fully adequate to the life and indefinite variety of the facts."

Difficulties ahead.

Although, however, we approach the problem of Nature thus blithely, there are difficulties, not yet in view, which may prove serious. Serious also will be others connected with the rise and evolution of individuals—the riddle of the standing of conceptual thought in particular. Are our concepts just forms in which imagination takes shape for certain ends? or do they and their logic presuppose as source a "rationality" of cosmic structure, for which our hypothesis has failed to allow? Here 's the rub without question, and I invite attention to our possible perplexity anon.

Method of discussion.

§ 4. What is the method of discussion to be adopted? In this regard a word will be timely concerning the relation of this essay to my last work the *Individual and Reality*, reference to which will facilitate understanding of much that I have to say later.

In the *Individual and Reality* the inquirer starts from his "private" experience, which is

[1] *Individual and Reality*, pp. 117 *et seq.*

regarded provisionally as a closed circle, or rather as a circle from which, theoretically, it may prove difficult to escape. However, the gate from his supposed prison-house into the macrocosm is found open; there results a real-idealism (*i.e.* an attitude which is at once idealistic and realistic) and a preliminary metaphysics of Nature is indicated in some detail. Next follows a reasoned ascent to the GROUND of both Nature and conscious beings, that is to say, to the Universal Psychical Life which, in the present essay, reappears in more adequate form as the Cosmic Imagination or Imaginal Ground. The book concludes with a melioristic account of world-history viewed as a stage in the Evolution of God; individuals not being sacrificed, but moving slowly through many lives toward harmony in a "Divine Event."

Thus the method or manner of inquiry conducts us from "*this*" circle of experience (which is regarded provisionally, and by a useful fiction, as closed) toward the totality of becoming and being. In the old and inexact technical language, it is a progress from the "particular" to the "universal"; with the reservation that "universal" does not mean here reality of the notional or conceptual sort. Notions, as we shall see, are SUBSTITUTE-FACTS, and we are in quest of reality itself—reality, too, not secondary and thin like notions, but immediate, concrete, and full as is our own sensible or perceptual life.

Advantages of an "empirical" method. And a risk!

Hegel himself observes that common sense and philosophy "will not yield up their right of rising to God from and out of the empirical view of the world." And a procedure which starts from

observed facts and moves tentatively forward step by step embodies just that respect for experience which certain temperaments exact. The inquirer travels by easy stages, can stop where he wishes, can be gnostic in so far as his enterprise and capacity permit, and remain agnostic as to residual problems which appear too hard. This method, fearful of the quicksands of speculation, seeks to build stably on experience—*i.e.* on the inward and outward present. It may serve well those who are feeling their way warily towards the light, guessing out their middle principles and verifying them, if luck favours, as they go. Still, there is a risk incidental to reports of this kind of travelling. Only he who has been to the end of the journey may be able to see the starting-point exactly as it ought to be seen! A grave risk indeed—for most travellers.

We recur here to the Hypothetical-deductive method, in so far as we shall require a method consciously followed.

Methods, however, as manners of inquiry or exposition, are, after all, conveniences and not masters;[1] we can take one up or drop it as occasion and the nature of the subject-matter prompt. It is desired, *e.g.*, to present convincing arguments in this essay. Well, "philosophical argument," as Bertrand Russell writes so neatly,[2] "speaking strictly, consists mainly of an endeavour to cause the reader to perceive what has been perceived by the author." And what is the situation here? There is to be no genuine attempt to feel a way warily toward the light. There is to be a testing, in the form of an exposition, of an hypothesis already obtained and quickly understood. Hence I resort to the Hypothetical-deductive method, in so far as

[1] *Individual and Reality*, pp. 24–5.
[2] *Principles of Mathematics*, p. 130.

I am to make use consciously of a method at all. Believing that I have "perceived" something of worth, I hope to make others also "perceive" it easily in this way. Our start, then, this time will be from the Cosmic Imagination itself.

Intuition and Hypothesis.

§ 5. "Hypothesis" itself sometimes seems a windfall which drops into the mind independently of effort on our part. And arriving thus and entertained prior to the verifying process, it may be discussed occasionally under another name. There is a natural reluctance to speak of "intuition" in this regard; so grossly has this unfortunate term been abused. Beliefs untrue and even grotesque have been defended with the "self-evidence" which "intuitions" are said to supply.[1] Popular metaphysics and vulgar mysticism exploit "intuitions" as substitutes for thought; a process demoralising in an intellectual regard and long ago condemned by its results. Setting aside these abuses, we find, however, that there are genuinely illuministic intuitions which compel notice.

There are intuitions such as bring to me *this* colour or *this* pain—these call for no comment here. There are others of wider range, revealing what is *common to things*. Some of these form a special class. Superior intuition shows in those principles

[1] In the Declaration of Independence of the U.S.A. it is held "self-evident that all men are created equal"! Dr Schiller, in his masterly *Formal Logic* (p. 237), points out that "There is hardly an absurdity for which self-evidence has not been claimed; there is no 'self-evident truth' which has not been disputed. Intuitions have proved false in all the sciences, even in mathematics."

of science which even the agnostic Tyndall had to attribute to "a kind of spiritual inspiration"; in the making of those general mathematical theorems which Faraday threw off, says Whetham, without the aid of formulas by a "kind of intuition, with the security of instinct," and in that "illuminism," which Schopenhauer and, since his day, Bergson,[1] have placed, as an innermost core of worth, at the heart of the really great systems of philosophy. But this superior intuition is not a mystery apart; it is of one tissue with the intuitions that support all the generalising of workaday life. Disregard the false mysticism which appeals to inspiration just because it is unable to think and which never has a *system* of its alleged discoveries to show. The superior intuition may arise in flashes of insight which are strongly emotional and quite cut off, at the moment, from reasoned antecedents such as logic requires. But its deliverances, once imparted to critics, are to be verified forthwith in the quarters to which they refer. Verification, indeed, is the touchstone indicating the "illuminism" which one can trust. It, and it alone, saves us from verbalism. Alleged intuitions, which do not confront part at least of the reality said to be "intuited," are idle. They ought to have no standing in serious thinking. The genuine superior or "illuministic" intuition, on the contrary, falls naturally into its place in systematic philosophy.

This is not the moment to discuss at length the part played by "illuminism" in the making of the

[1] "There is no durable system that is not, at least in some of its parts, vivified by intuition" (Bergson, *Creative Evolution*, Eng. trans., p. 251). I cannot, however, agree with Bergson when he contrasts intellect with intuition so sharply. But of this later.

Case of the alleged superior or "illuministic" intuition as verified and introduced into philosophy.

sciences and philosophy. Let us consider, however, the case of our own truth-claim in respect of the Imaginal Ground. Let us suppose that this claim originates as a flash of insight in a thinker who is looking on a landscape—just as the insight of "idealism" originated, perhaps, for Berkeley. It arises in a rich emotional setting. It seems more akin to concrete sensible reality than to a concept, is a disconnected deliverance which has dropped into consciousness like a bolt from the blue. This is the stage of *the "flash"*—of the genial glance. I now proceed to connect this flash with the rest of my knowledge, to verify it at leisure in the different regions of experience. It has become *hypothesis.* I find anon that it is illustrated in all the regions which it is intended to cover. It has become a *principle* of truth, and as such enters into a *system* of philosophy.

Note, however, that this system, however elaborately organised and impressive it may become, is an afterthought. Its method, perhaps, is announced in grandiose fashion as exhaustive deduction from a principle that has been inductively acquired. But deduction, while it applies a principle, does not create the objects which verify it. The essential is merely that I should *look at* different regions of experience and find myself able to say, "Lo! the principle is there—and there—and there." Thus at the base of the entire system, "principle," "logical" articulation and all, lies that which was not logically acquired, the psychical experience, not terminating an inductive process, but coming as a free gift from the gods—the Intuition!

One principle, however, will not suffice. Many

principles concur in the building up of a system; one or a few, if we are very fortunate, "illuministic," some generalised laboriously from experience, some guessed and then verified, and others again invented so as to be useful rather than true. But "Illuminism," as emphasised by Schopenhauer, is what reveals, for the most part, the new horizons. Failing this, philosophy is apt to become stale, a stagnant pool at which, piercing the scum of learned literature, one drinks only of the past.

Further developments to be attempted in the essay.

§ 6. Readers of the *Individual and Reality* will note here a more adequate consideration of the crux of "consciousness"; an advance which throws new light, I trust, on the riddle of God and of God's relation to what formerly I termed "the Ground." This and the treatment of imagination constitute the most important developments in the essay. But, while discussing this main advance, we shall find many new horizons coming into view. Thus the account of the Origin and Evolution of Nature presents many subordinate vistas of a novel kind. It will reject utterly the popular mechanistic view of the sensible world, not retaining, like Bergson, that relic of the old dualism, "inert Matter," nor taking refuge even in "Energetics." It will be an attempt to show that Nature is literally "such stuff as dreams are made of," though the dreams, it is true, are not those of finites such as ourselves. And it dismisses the abstract material Nature, which mechanists adore, as a secondary conceptual creation having no reality outside its human creators' heads.

"Mechanism," as Hegel observes so truly of this "category," is a "shallow and superficial mode of

observation." It simplifies thinking, however, for science. And students of science who want to get beyond it and form some idea of the concrete psychical life of Nature, must be prepared to turn towards horizons novel indeed.

"For what may I hope?"

§ 7. Throughout the essay I have in view, in the main, Kant's question, "What can I know?" But I have not ignored his two other questions, "What ought I to do?" and "For what may I hope?" The third of these, too often shirked by modern philosophy, is likely to be of vital moment in the days to come. World-weariness is a natural consequence of belief in systems which exalt the "race" or an uninviting Universe, but are careless of the hopes of the individual. It is idle, of course, to bid us sink these hopes in adoration of the "race." The "race" is nothing apart from the individuals who compose it. And a study of its past, uncheered by illuminating thought, often brings disillusionment, and after disillusionment disgust and apathy. We hear much of the social reconstruction that is going on around us, much of wondrous transformations, economic and political, with which the age, it is said, is big; we wish these dreams well, but we take thought of prior disappointments and ask what men, sustained by what hopes, are to see these things through. There is no terrestrial paradise awaiting the race in the near future. Nay, there is no sure promise of a satisfactory life for the plain man, even if the spectacular transformations come to pass. From what source, then, are reformers to draw the enthusiasm and whole-heartedness which are loudly demanded of the citizens of the future, but which may prove so terribly hard to secure?

Not assuredly from the bleak philosophical systems dear to so many socialists, systems which, stripping the individual of his hopes, are vitiated by pessimism. All systems, according to which the individual perishes at death, are pessimistic in fact, if not in name ; *expositions of the futility of conscious life*, that will appeal to men with even greater force the more intellectual they become and the more leisure improved economic arrangements allow for thinking. How am I to toil joyfully for high achievements, personal and social, if I am sure that each hardly-won success only brings myself and the race nearer the Night ? We shall be wise to spare trouble and go easily—go like shirkers worthy of their absurd world, contemptuous of the call to strenuous living, quick to snatch at such pleasures as still care and are keen and cheap—always supposing that we consent to exist and multiply at all ! The menace of Pessimism.

From the afterglow of Christianity we must pass to the dawn of a larger and fuller hope ! The society of the future can build stably on nothing less. In answering Kant's first question, we may be able to suggest the intellectual grounds of this hope.

The short " Glossary " is inserted at the desire of friends in the interests of readers unversed in philosophy. Certain terms and definitions are novel.

§ 8. Mention of this Glossary moves me to advert briefly to the linguistic crimes often imputed to philosophers. It has been said that these writers take joy in multiplying abstruse technical terms which confuse and discourage the plain man. What is the case for the defence ? Well, I have to admit Philosophy and its language.

that there are cloud-compelling philosophers, whose style and terminology leave very much to be desired (their matter, however, sometimes compensating us well for the manner in which it is imparted). On the other hand, I observe that some of the clearest writing extant is to be found in the literature of philosophy. What masters of lucid expression were Locke, Berkeley, Hume, John Stuart Mill, Alexander Bain, and William James! And what admirable models, in respect of matter and manner alike, exist in the works of living writers, say, of M'Taggart of Cambridge, of Bradley, Schiller, Bergson, Bosanquet, and Stout! The real trouble behind the protest lies not with the philosophers, but with the slovenliness and superficiality of the plain man's thinking.

The plain man, in truth, is not accustomed to take the trouble of using general names with precision. He dislikes intellectual toil. He resents, accordingly, a discipline which bids him, before attempting serious thought, master a sufficiency of clearly defined and consistently used general names. It is because philosophers have tried to create a sufficiency of such terms, having determinate and fixed "connotations," that their vocabulary, when confronted for the first time, tends to appal. It is useless, however, for the lazy to grumble. The world is such that it exacts this laborious task.

I wrote "tried to create," and by this hangs a significant truth. *There is not even now a sufficiency of the terms required.* There is a shortage, not a redundancy, of the word-instruments which we require in order to delimitate and fix meanings. It

results that what, in respect of sound and written form, is one term has frequently to be used with several meanings. An example of an overworked term of this sort is "Reality," which, as Dr J. S. Mackenzie has shown (*Mind*, January 1914), has no less than seven important meanings, some quite easily confused. Another case is that of "unconscious" which Von Hartmann credits with no less than nineteen! Not improperly did Mill complain that ". . . the greatest embarrassment felt by all who have any considerable number of thoughts to express, is to find a sufficient variety of precise words fitted to express them" (*Logic*, Bk. I. chap. iii. § 2). We ought, strictly speaking, to deplore, not the fact that philosophy requires so many special terms, but the fact that it is still, to so great an extent, unprovided with them!

The plain man, however, if he perseveres, will find that the main difficulties of metaphysics are not affairs of language. They concern the novel concepts and judgments which language serves merely to register and support. Here, indeed, is the rub; and lamentations about phraseology avail nothing to hide the truth, namely, that metaphysics, like logic or the higher mathematics or even physics, cannot be made easy; not even for fashionable folk whom a Bergson charms during some hour stolen from the circulating library or tango. After all there is an intellectual aristocracy, admission to which never goes by favour.

§ 9. Is metaphysics dry and uninteresting? That is for the student to decide for himself. We have referred to it as inquiry into the ultimate

The Romance of Metaphysics.

character of Reality, a word that covers here anything and everything that has a place in the Universe. And we shall find it probable that this ultimate reality is no blind mechanism, no collection of merely pluralistic existents, not even a static spiritual Absolute, but that it is describable as being, in a pre-eminent sense, Divine Imagining. This result seems to possess interest, but, in such matters, every man must be an authority unto himself.

Our task in this first essay of a series.

In this, the first essay, perhaps, of a series, we commence our task by discussing the *Frame* within which the canvas of unified scientific knowledge ought to lie. It is an experimental Frame which may or may not serve our uses. That is for the future to show. The present account of the World as Imagination does not carry us far beyond the Evolution of Nature, closing with an indication of the " first steps towards a Solution of the Riddle of Evil "—a riddle that has brought disaster to many a world-historic system of thought. The series will be continued with an account of " the Individual : a retrospect and a prospect."

CHAPTER I

ON THE GROUND OF APPEARANCES OR PHENOMENA

The Ground of Appearances or Phenomena.

§ 1. THE basic hypothesis of our rendering of metaphysics concerns the Ground of Phenomena. By Ground I mean that ultimate, all-inclusive reality, of which Nature (or the Natures) and all that falls within the history of sentients are the finite expression or show. The Ground is that to which appearances or phenomena—stars, nebulae, sun, planets, organisms, animal and human sentients, science, art, religion, the romance of sociology and the nations, etc. etc.—belong in some manner not yet clearly understood ; that ocean of the infinite which rolls through, as well as beyond, the frontiers of our conscious lives. *Primâ facie* our experience suggests that the Ground is no static or changeless Whole, a so-called infinite *limited by lack of power to initiate the new*, but is creative, fecund of novelty which constitutes, perhaps, a radically real aspect of every change. The Ground, indeed, as we shall conceive it here, seems not ultimate in the sense that it possesses its wealth, like a Hindu or German Absolute, in immutable frozen fixity above time. It is ultimate in that, while underlying explanations of all kinds, and solving for us, to this extent, all possible problems, it cannot itself be resolved into anything else. It is all-inclusive, in that all so-called "other"

The meanings for us of "ultimate" and "all-inclusive."

realities must, in last resort, be expressed in terms which it includes. This Ground, which is left vague and indeterminate for the while, and which we shall refuse anon to label in a numerical sense either "one" or "many," forms the chief topic of the present essay.

Nihilism and its rejection of a Ground.

§ 2. There is, however, hiding in dark corners of philosophy, a Nihilism which resents belief in this or any other type of Ground or Grounds. Its procedure is as follows. It resolves Nature into a flux of "states," labelled perceptions. Next, it supposes that these "states," along with other "states" labelled ideas, emotions, etc., come and go inexplicably in inexplicably separate centres of consciousness; the "states" and the "centres" alike being denied even momentary reality. Of course, if these "states" and "centres" are literally *nothing*, it is idle to ask of what larger reality, or collection of realities, they are the partial expression or show. This hypothesis is psychological idealism in its most extravagant form.[1] Those who wish to confute it have an easy task.

(1) Nature does not consist of the "perceptions" of any, or all, finite sentients; not even of those "states of consciousness" on which emphasis is laid, though with certain reservations, in the psychological idealism of Mill. (2) The contents of "centres" of experience cannot be described adequately as "states." (3) To be "real," in the sense under discussion, means to fill a place, even if only momen-

[1] A school of this sort seems to have existed among the Indian Buddhists. None of the Greeks and moderns have quite committed themselves, but flirtations with Nihilism, if seldom serious, have been frequent.

tarily, in the Universe, and the so-called "states" and the "centres," being *noticeable* and *distinguishable* from one another, fill such places and are, to this extent, real. Certainly this universe or "multiverse" would be weirdly pluralistic and broken; would include infinitely many psychical terms having ragged edges, an unintelligible independence, and contingent external relations most mysteriously achieved. But, articulate this odd "Multiverse" as one might, its elements, as thus noticed and distinguished, could not be snuffed out by words. And being thus indubitably real, they prompt hypothesis as to why they appear in the settings, and with the behaviour, of which we are aware—prompt speculation as to the character of a larger reality which includes them and wherein their relations meet. Why, for instance, do two very like clusters of "states," or groups of causal conditions, *ABC* and *abc*, issue in very like effects? In a "multiverse" of atomistic psychical "states" the answer would be far to seek! We turn at once toward a solution in some reality of wider grasp than the "states": in short, to a Ground (or Grounds) which appears in the "states" and in their relations alike.

Philosophy and religion are forced to admit the reality of some Ground or Grounds.

§ 3. Experiences come to us fragmentarily, and thought, which *supplements* the passing show, is the means of completing them into an intelligible whole. What occurs, in the case of the simplest practical inference, when we perceive a colour or sound takes place also when we think about the totality of our limited experience of Nature and conscious life. What we aware directly in percepts or represent pictorially and in concepts, verified or verifiable by ourselves and others, has to be *supplemented* or

amplified on the great scale. There is a fatality in this process which leads to metaphysics. All men, indeed, who are sane, are metaphysicians, however unconscious of the fact; "the only mere physicists are the animals; they alone do not think."[1] And at the base of their thinking, whether dominantly analytic or supplementative of experience, lies an inevitable hypothesis as to the Ground or Grounds. All the great systems of philosophy, as well as the dogma connected with the religions, have made attempts to conceive this Ground. They must; for refusal would leave our experience too fragmentary, a patchwork of rags and tatters showing ridiculously in a void. These attempts, in so far as they concern truth, vary enormously in value, ranging from thought-systems on levels held by an Aristotle, a Hegel or a Schelling down to those practical creeds, for which the Ground of appearances becomes a magnified man or men! But all attempts, even the most absurd, minister to the same need of supplementing too fragmentary experience. For the philosopher, who wants to see things together as a whole, the main interest lies in a supplementation which shall represent, even if darkly and symbolically, the Universal Reality as it actually is. In the case of the man of faith, whose bent is to believe whatever makes the heart glad and subserves practical life, the truth-interest is less prominent; and often grotesque views of Reality come to prevail. But, after all, there are illusions on which communities thrive. And crude dogma, useful, perhaps, in the youth of the race, will not content its masses, any more than its intellectuals, for all time. Meanwhile something of moment has been accomplished

[1] Hegel.

—men have risen out of the torpor of animal intelligence and have taken the first tottering steps on the path of thinking.

Varieties of philosophical interpretations of the Ground (or Grounds). Our procedure in their regard.

§ 4. I made mention that the Ground required for our own rendering of metaphysics is not to be described in a numerical sense as "one" or "many." It remains, withal, to note that there are Monisms, Dualisms, and Pluralisms of which we may have to take account. For the monist the Ground is "one"; for the dualist and pluralist the Grounds are "two," many and even infinitely numerous. And Monism, again, may be idealistic, materialistic, dynamical, and even agnostic. Monistic idealism, again, has several forms, and there are dualistic and pluralistic idealisms to consider as well. And so on—different interpretations of the Ground (or Grounds) abound in the history of philosophy. It is not proposed, nor is it, indeed, practicable, to examine them all here. But most are of interest; stirring experimental ventures in the same case with our own. We cannot afford to ignore them altogether. I propose, therefore, to subject the more representative of these hypotheses to a brief criticism, and this with two purposes in view. In the first place, I desire to suggest on what lines criticism of these sorts of hypothesis ought to proceed; in the second place, I want the necessary contrasts which shall throw our competing hypothesis and its subordinate hypotheses into strong relief. In this way we shall move, like Time the scythe-bearer, destroying in order to construct, and learning, as we go, in what manner to avoid the more obvious errors of the past. The construction, for the present, however, must remain an experiment and nothing more. Even though

our hypothesis be found to fit all the " verifying " minor truths and facts, there may arise, nevertheless, some other hypothesis, not yet available for discussion, which will fit them better. With this note of caution I pass to consider certain of the more representative hypotheses as to the character of the Ground. Materialism and allied attitudes will concern us at the outset. Anon, specially illuminating contrasts furnished by the thought of Hegel and certain of his successors, will enable us to state our own experimental views with little risk of being misunderstood.

CHAPTER II

ON HYPOTHESIS AND SOME REPRESENTATIVE HYPOTHESES AS TO THE CHARACTER OF THE GROUND OR GROUNDS

LET us consider, then, as briefly as may be feasible, certain representative hypotheses as to the character of the Ground or Grounds. And first as to hypothesis.

Hypothesis and inductive inquiry.

§ 1. Mill and Bain have discussed hypothesis as taking the place of the "inductive stage" in what they have called the "complete method" of inductive inquiry; procedure of which it is said that it combines induction, deduction and verification, and is specially useful, if not indispensable, for the analysis of phenomena of great complexity. Hypothesis is a supposition, insufficiently supported by, or even lacking, evidence, whence are deduced conclusions which square with already ascertained or ascertainable minor truths and particular facts; the hope being, in Mill's words, "that if the conclusions to which the hypothesis leads are known truths, the hypothesis itself either must be, or at least is likely to be true."[1] You make a statement, then, which, standing by itself, would be little more than noise—

[1] *Logic*, Bk. III. chap. xiv. § 4. 8th People's Edit.

mere *flatus vocis*—and, finding that other statements and facts to which it applies can be treated as "cases" or "illustrations" of it, incline henceforth to label it true. Hypothesis, withal, covers a much wider field than Mill's artificial isolation of the complete or "deductive" method allows; suppositions being present, as is now generally admitted, in all inductions, not merely enumerative, where any purposive mental analysis of phenomena occurs. It may be, in its main emphasis, analytic as when, in the case of a *given* complex situation, we endeavour to dissect out aspects or "elements" which form a "causal relation." But, again, it may concern, in the main, the supplementation of given experience as when, for example, writers frame hypotheses as to the character of the Universe, of which their direct intuitive knowledge seems so limited and, indeed, pitiably slight. Even in the case of a speculation like the Nebular Hypothesis, there is like imaginal expansion on the great scale: a vast supplementation of the information which direct perception gives us. No one could reach this hypothesis by merely supposing certain connections of phenomena within the bounds of a given or directly perceived complex. Clearly the main value of the hypothesis lies in what it adds to the narrow perceptual experience which we enjoy. It is essentially an imaginal makeshift for sensible experience which is desired, but which cannot be had.

Hypothesis and Imagination.

§ 2. Now note this phrase "*imaginal* makeshift," for it involves a consideration that will prove of high importance anon. We are to observe, even at this stage of the inquiry, that there is no occult "rational" power of mind which extrudes hypo-

theses in some manner suggestive of "logic." Hypotheses, when formed consciously and not dropping on us like gifts from the gods as the "illuministic intuitions" discussed in the Introduction (§ 5, "Intuition and Hypothesis"), are fruits of our relevant *imagining*. They are experimental ventures, shots at marks which may never be hit, and the making of them is limited only by the possibilities of this *imagining*. Working by trial and error, we have to test them by the experiences to which their verbal embodiments refer, failing which procedure we are wordspinners who merely waste time. How warily one ought to move in thinking, how absurd seems much of the dogmatism which has counted in history, how crazy the loyalty to strings of words, how blind the devotion to formulae which exercise, perhaps, the tongue, but offer the head—mainly noise! An understanding of the need for verification would rid the world of a large number of its most potent beliefs.

What, however, is the basic requirement which the verified hypotheses have satisfied? I submit that the reply runs thus. Their truth depends on whether *our secondary imagining* represents, mirrors with a fulness sufficient for our passing purposes, *that imagining in the cosmic structure* which is of *primary* interest. *E.g.* my hypothesis about the Sun's interior is true, if the imagining, which constitutes it, is sufficiently like the reality in Nature-imagining for which, as a mental substitute-fact, it stands. We seem within hail of an improved Correspondence-Theory of Truth, presupposing, of course, acceptance of the main contention of this essay to the effect that ultimate reality is imaginal,

that the Cosmic Imagination is all in all, the mother-stuff of whose modes and transformations anything and everything, of which we can be conscious, consists. There is no call to dwell on this bare suggestion now. But a glance at the future is encouraging. We have been noting that hypotheses are forms of imagination. We are now to suspect that imagination, in framing its hypothesis about the Ground, will confront a reality *akin in character to itself*, will frame the illuminative "concept" (or mental substitute-fact) of the Cosmic Imagination. And this suspicion will serve to stir the pulse and prompt vigorous prosecution of an inquiry that seems of good promise. We shall find, further, that this view of hypothesis is worth bearing in mind during the whole of the discussion that is to follow shortly.

Hypothesis and fictions.

§ 3. "Verification," however, does not seem always satisfactory; it leaves us occasionally still doubtful. We must be on our guard against the useful hypothesis which may not, or cannot, claim to be true as well; against the proposition that "works" so far as economy of thinking and prediction are concerned, but which fails to mirror or represent reality sufficiently well. Useful fictions, of course, swarm alike in science and popular thinking. Nay, if we are to be guided by writers like Vaihinger, there is scope for a philosophy of fictions which ousts most of truth and reality out of human life! Mill observes more justly that there is "probably no hypothesis in the history of science in which both the agent and the laws of its working were fictitious." And there is a reason for this optimism which can be stated as follows.

When we come to examine some of the famous hypotheses of science, *e.g.* those in which figure concepts such as "matter," "force," "energy," "ether," "atoms," "electrons," and the like, we suspect at first both the alleged agents and their alleged ways of working. The formulae seem to have no possible value save for practice—are riddled with objections which, for the truth-seeker, invite scepticism complete. Nevertheless it is probable that a dull glimmer of truth lights the very worst of these fictions, designed even though they be only for practical needs. Unless, indeed, these fictions and their workings had some resemblance to reality, *even their practical utility could not be guaranteed.* As mental substitute-facts they are required to represent, in some not wholly untrue way, the character and behaviour of the realities for which they stand. Experiments with them will, then, serve, for limited purposes, in place of experiments with the realities of primary interest. In this manner a general, thinking far from the field of battle and using only remembered maps and flags as counters, might find that, for a few purposes, his substitute-facts amply suffice. But they suffice only because there exists a resemblance between the substitute-facts and the things of primary interest for which they stand. The flags, for instance, are imagined as moving in ways analogous to those in which army-corps move. To accept a flag as a useful fiction of this sort is not to say that it reveals an army-corps in the form in which a truth-seeker would wish to picture it. Still in certain ways the flag does resemble an army-corps; and in these ways is found the leaven of truth. Predictions of a limited kind become feasible.

In like manner the inventions of the Undulatory Hypothesis of light are not sheerly false. But truth-seekers, having only a contemplative interest in Nature, will find the fictions involved decidedly poor. Every one is aware directly of the glories of light. But no one ever perceived, or could ever perceive, colourless undulations in an "ether" clad in mere rags of quality; only by an effort can we tolerate this conceptual mechanics, this realm of shades, in place of what sensible perception reveals. In passing it is worth while to suggest that to take the "professors' Nature," the mechanistic world of the physicist and mathematician, too seriously is to harbour a superstition as absurd as any which has marred the history of popular thought.

On the other hand, the Nebular Hypothesis about the emergence of suns and planets from a primeval firemist is an example of a supposal which professes to have no use for fictions. Being unable to vindicate it by repeating the original observations—if such there were—of a prehuman witness, we seek to "verify" it indirectly by showing that deductions drawn from it, and combined with other propositions known to be true, square with present-time observable fact. The end sought ministers to our interest in knowledge. The story of a great happening in Nature, the birth of the solar system, is desired for its own sake, not as a means toward something else. And we construct, accordingly, an imaginal or "conceptual" makeshift which does duty for what would be the superior sensible perception of a god.

The would-be true hypothesis and the hypothesis

using fictions are both created by imagining; the one is an experiment (often with very abstract aspects of ideal content) which concerns primarily the knowledge-interest; the other, sometimes a most masterly achievement, has to be justified by its services to action, is not itself an end, but a means towards an ulterior goal. But it is evident that the frontier between the two sorts of supposal is not to be drawn sharply. Many or most of the hypotheses of the first sort have dealings, wittingly or unwittingly, with fictions and, contrariwise, as already urged, there can be very few, if any, fictitious agents and fictitious laws of their working which do not, in some way, represent truly the reality for which they stand in thought. Thus (1) even the Nebular Hypothesis, while proposing to mirror truly for us a passage in the history of the solar system as it actually occurred, makes use well-nigh always of gaunt mechanistic fictions such as "matter," "energy," "forces," and the like. It is saved from untruth in our eyes because we supply unconsciously all the so-called secondary qualities, colour and the rest, which are present in *experienced* Nature, but absent from the *conceptual* or mechanical-substitute Nature of physicists' and astronomers' minds. A merely mechanical Nature is unknown to experience; belongs to fiction. (2) Consider, on the other hand, the Daltonian hypothesis about elementary "atoms." If you mean to urge that Nature (solid, liquid, and gaseous) consists of small units, each having only one or two qualities and conceived by the dodge of stripping mentally an ordinary complex object of most of its wealth, then, indeed, I have to dismiss the atoms as fictions. They are not discoveries, but inventions; reality,

prior to the inventing, contained nothing of this character at all. Nevertheless, the hypothesis is not to be set hastily at naught. It and its bloodless abstractions are more than merely convenient —have a leaven, in short, of truth ; prompt us to go beyond them into the misdescribed penetralia of things. The "atoms," etc., point, as we shall see, to the reality of *more or less discrete centres* of psychical activity in Nature [1]—the rich complex Nature which the Cosmic Imagination contains. Much, however, will have to be discussed before a saving truth-symbolism of this sort can be accorded worth. By that time the metaphysics, as well as the fiction, of chemistry will have received its share of notice.

Hypotheses, Command-Propositions, and Command-Concepts.

§ 4. Henri Poincaré divided hypotheses into three classes—(1) those dealing with alleged "real relations in reality," some verifiable and becoming truths of great fertility ; (2) those of an "indifferent" sort, only useful in fixing our ideas (thus the analyst can work either on the supposition that "matter" is "continuous" or "atomic") ; and (3) those which he calls hypotheses only in appearance, *e.g.* the "definitions" which obtain in mathematics and the mathematical sciences. These "definitions," which give the sciences their rigour, are the work of our creative thought, not acting indeed arbitrarily, but inventing, on the basis of what experience supplies, modes of thinking as convenient as is possible. The principles of geometry are "definitions" in this sense of the term ; conven-

[1] *Cf.* here the long discussion based on the "transcendent validity of causality" in *Individual and Reality*, pp. 100–23, Part II. chap. iii. "Appearances and the External World."

tions defined creatively for the realm of mind, against a background, indeed, of what primary experience offers, but copying precisely nothing which that experience contains. Again, the mathematician's "extremely complex and subtle conception" of magnitude is no mere duplicate of the sensible magnitude which comes to perception. It is created. So are very many other mathematical concepts used by thinkers.

The word "definition" is associated too closely with statements as to the meanings of *names*. It is unsuitable to express the peculiarity of this kind of creation. We are now in the zone of the *Command-Concept* and the *Command-Proposition*. In the case of an ordinary proposition, accepted as true, there is said to be an "idea" in agreement with "reality" which confronts it and which it does not create. The peculiarity of the Command-Proposition (which is certainly not hypothesis in the sense in which we have discussed it, § 1) is that it summons, or tries to summon, into being the "reality" which it concerns. There is a command or decree that, along with the assertion, the reality, which is indicated, shall flash somehow into existence. Imaginal creation will have it so. It is not making experimental hypothesis which is to be applied tentatively to experience, and perhaps to be negatived on appeal. In uttering, *e.g.*, the "axiom" of parallels, it is making an assertion about something which experience, as it comes originally to us, does not and cannot contain, but which henceforth *by decree* the Universe has got to contain, and to contain, further, in a fixity immune from change. There is a mathematical mysticism which dispenses with

What imaginal creation effects here.

our initiative. Writers have held that there are mathematical "entities" which exist in their own right on a timeless level of their own, and that in thinking we only become aware of these "entities" as they are in themselves; that we are entertaining guests, rather than peopling our thought afresh. But if our view of the Command-Proposition be sound, there is no call for mysticism of this kind. Take the case of a "transfinite cardinal." I do not *find* this "entity" in the vasty deep. With the help of a teacher who has created it for himself and who enjoys it in his private conceptual world, I create it for myself as well. There is a *Fiat*, and I feign that my command has been carried out; that there confronts me in the Universe an independent reality of which I assert *truth*. At once I am able to reason just *as if* my command had taken shape in the required reality. In fact, for the purposes of my reasoning, a feigned "entity" and an actual one come to the same thing. The possibility that my command has been inoperative and that there is no such "entity," matters literally not at all—for my reasoning.

Mathematics and Cosmic Imagining.

§ 5. Is there any evidence in support of the belief in *independent* mathematical "entities" said to be *timeless* and yet supposed very strangely to be present to us over long intervals *of time*? Apparently not. But there is a view, supplementing our reliance on the creative powers of individuals, which must be considered. Why, it may be asked, cannot mathematical *aspects* or *content*, not "timeless," indeed, but *enduring*, be created by, or belong stably to, cosmic as well as private imagining? This is a totally different supposition and deserves

our most serious attention. But we are not yet in a position to deal with it satisfactorily. Stable mathematical aspects, let us agree, characterise the structure of cosmic imagining. But the point of immediate interest, in the regard of the Command-Proposition, is that *we, too, are centres of creation or creative effort*, and that full allowance must be made for so vitally significant a fact.

True hypotheses do not always assert "real relations in reality."

§ 6. The last observation I have to make on hypothesis is that the true one does not always reveal "real relations in reality." Such a statement can be made only by a writer intent on the interests of certain of the abstract sciences. It does not apply to the basal hypothesis of metaphysics. Thus we here are in quest not of mere "relations," but of that which is the ground of all "terms" and "relations" alike.

1. Materialism and Allied Hypotheses

§ 7. True hypotheses are formed by imagining, which tries to simulate a reality of primary interest. The limits of them, as even Mill allows, are the limits of imagining. Now note this. In the cases of all hypotheses about the Ground, save our own, the imaginal makeshift or supposal has to stand for *that which is held not to resemble it closely*. It is only by imagining that Hegel himself, when not lost in words, can suppose the Logical Idea or Reason. But, on our lines, hypothesis or truth-claim can close intimately with its object. Since to think truly is to imagine more or less as the Ground, *i.e.* Ultimate Reality, imagines, we can hazard a hope that our imagining will prove, not a

miserably defective makeshift, but a glass through which we shall see, darkly perhaps, but, withal, to much profit.

The Fallacy of Materialism.

In the case of Materialism, taken in its strict form, the supposal is that the Ground of phenomena or Ultimate Reality is "Matter in motion." This supposal is reached by imagining certain very abstract aspects of perception, "extension," "resistance," and "motion," and creating therewith a concept which consists of these three abstractions, awared together, and nothing else. The Universe is then identified with this result! Now the radical way of answering Materialism is this. This imaginal creation is, in no sense, an adequate mental substitute for the reality—the universal reality—for which it is made to stand. It is the fruit of a policy of *ignoring*. It presupposes a *restriction of attention* to one or two aspects of sensible perception and it offers these rags and tatters as representative of the expanse of reality as a whole.[1] The Ground, conceived thus arbitrarily, is alleged to be different in character from the imagining which gave it conceptual birth. It is not a psychical reality, *i.e.* it is not an existence of the type which belongs to conscious experience. It consists, by convention, *only* of extended, resisting things which move about in complex ways. There is no room in this collection of mechanical things for anything beyond what has been put there. If now you ask how conscious life came to arise out of this insentient Ground, the materialist has two replies. Very frequently he has told us that conscious life *is* matter in motion;[2]

[1] *Individual and Reality*, pp. 94–6.

[2] Büchner, Vogt, Moleschott, Letourneau, etc. etc.

though he seldom allows that this amazing *identity* obtains elsewhere than in the brain. The second reply avers that conscious life *results from* material motion; motion evaporating temporarily off the material system to be transformed into conscious life and anon returning to matter transformed into motion anew. The temporary disappearance of "motion" is required by this solution; an occurrence, in a mechanical world, which will excite surprise. Indeed, the entire causal riddle raised by the reply promises trouble. In this class of hypothesis the starting-point is too *abstract*, leaving no scope for the defence.

Historically speaking, we can justify Materialism. We can trace very plausibly how the cult of its abstractions came to pass and how this cult, as imported into portions of science, has subserved practical ends, in the main, very useful to mankind.[1] There is a need for reasoning about the world, as whittled down in this way, provided always that we are not in search of complete truth. The convenience, the power of grip, conferred by this conceptual treatment, are astonishing. In Prof. Macdougall's words, "So long as we can confidently believe that all the events to be reckoned with by science are but the motions of masses, or the transformations of measurable quantities of energy according to exact equations that can be calculated and therefore foretold, the mind feels itself at home and master of what it deals with, and there lies before it the prospect of a continual approach towards a completed power of prediction and control

The utility of materialistic ways of thinking in science is no vindication of their worth as metaphysics.

[1] *Individual and Reality*, pp. 92–4, 110–11, and elsewhere.

of the future course of events." [1] There is this loud note of triumph in the saying of Laplace that a mind, aware of all masses, their positions, and initial velocities, could foretell natural happenings for eternity! But a closed mechanical system is wanted by many, not only to predict or calculate retrospectively with, but to furnish a convenient way of thinking things together. Pursuing this aim, you get rid of (i.e. *ignore, decline to notice!*) as much quality as possible and reduce things to quantities of a few simple "elements"; you can, then, conceive reality as consisting only of these beggarly "elements" and their functional relations. There is born a universe of parts external to, and independent of, one another; a so-called mechanistic system in which any one part acts on another, and is itself acted on, only from the outside. You can *conceive*, I say, by this method of restricted notice, reality attenuated into mechanism. But this comprehensive view is secured at too great a cost. There is a *Fallacy of Simplicity* [2] which warns us not to exalt too hastily a convenient means of thinking things together into a vision of absolute truth. If we take the "mathematical description" too seriously, we are sliding in the couloir which slopes to philosophical Materialism below. There is literally, as Hegel urges, "coincidence of the materialist with the exclusively mathematical point of view." [3] So, not wishing to strangle ourselves with

[1] *Body and Mind*, p. 144. *Cf.* also A. E. Taylor, *Elements of Metaphysics*, p. 192, for some telling remarks.

[2] Cf. *Individual and Reality*, "The Fallacy of Simplicity," p. 94.

[3] *Logic of Hegel*, Wallace, p. 161. The attempt to whittle down reality into "quantitative differences" without quality

a noose of our own making, to wit the mechanistic device or convention, we do well to turn once more to Experience, the inward and outward present, and endeavour to construct concepts fuller and richer, more loyal to sensible reality, more adequate to the wealth which fills conscious life and flows riotously through the poor intellectual nets in which we seek to hold it.

The issue is of the first importance, and I will look at it from another angle. What was the ambition of modern philosophical Materialism, an attitude which put its trust in the belief that all knowledge comes from experience? It was to show that Ultimate Reality is the same as that reality which is *perceived*, which is present or given in sensible experience—of organisms, water, mountains, stocks, and stones, etc. That reality is identified with Matter in its varied modes of movement.[1] Here lies the master flaw. Experience cannot verify the hypothesis. No one, in fact, has ever perceived this astonishing "Matter." "Matter" is an *imaginal creation* of our own making, a concept of reality having only aspects of extension, inertia, and movement; some writers mention no more than extension and inertia; Bain, indeed, notes inertia alone. It is not, of course, this bloodless concept which sensible experience reveals. "Matter" is not Nature with its indefinitely varied and complex wealth. Nature shows in what is perceived,

"Matter" is an imaginal creation of our own making.

becomes the more hopeless the more quality is ignored and, in that sense, eliminated. As soon as quality is abolished fully, quantity also disappears.

[1] The Time-and-Space-frame, on the canvas of which material movements happen, seems very often taken for granted!

the flow of gorgeous space-hung time-strung appearances enjoyed by the unsophisticated man—not in a desiccated afterthought of the study, a conceptual device or dodge by which "irrelevancies" are dropped and arid calculations facilitated. Look forth from the Matterhorn over the valley of St Nicholas, a glory of light, colour and shade, from the depths of which a dull roar of torrents rises toward glacier-strewn peaks—that is a glimpse of Nature *as primary experience gives it.* Contrast this outlook with a so-called ultimate reality—"Matter" the concept masquerading as something more—which is said to be *merely extended, resisting and moving,* and you confront the swindle of Materialism already exposed. It is impossible, you can now observe, to verify Materialism by experience. It is only a secondary conceptually-doctored experience which is available for that quite impracticable job.

Materialism has confused Nature with "Matter."

Materialism, then, is convicted of having confused Nature with "Matter" — the glorious complex present to perception with an arid working-concept born in the study. All its subsequent offences are inevitable. The derivation of experienced Nature, and, above all, of conscious life from its conceptual "ultimate reality" becomes grotesque. There is no means of shuffling and reshuffling "extension," "inertia," and "movement," so as to yield what you desire. You cannot get out of the conjurer's hat more than you have put into it. And probably you only tolerate the attempt because you are supplying unwittingly to "Matter" and "Matter's" alleged doings all that glow of live sensible quality which your actual Nature-experience alone displays. In this way you allow yourself all too readily to be

deceived; you invest, for instance, the "material" nebula of Tyndall's "Belfast Address" with the "promise and potency of all terrestrial life"; regard it as possibly the source of your own conscious life itself. But a nebula of *this* kind is barren!

Now take note you materialists who appeal so loudly to experience and at the same time flout it. There is a way of being loyal to this experience, of accepting Nature in the form which your unsophisticated perceptions sample. When you have grasped it, you will be surprised that you lingered in the valley of shadows so long. And having learnt once more how to perceive Nature, you will recast later your paradoxical descriptions of the origin of conscious life. At present you are saying that Nature and conscious life are not what we aware them to be, but something else! And this something else has turned out to be just an invention of the study —"matter in motion." Let us pass on.

On Force or Forces regarded as Ultimate Reality.

§ 8. Hypotheses, allied to Materialism and, like it, denying that ultimate reality is psychical, sometimes employ the concepts "Force" and "Energy." Ordinarily "Force" works in harness with "Matter," [1] but sometimes alone. "Energy," also, is made to co-operate with "Matter" or, again, to support unaided, and on truly Atlantean shoulders, the weight of a universe.

These are further blundering attempts to show that Nature and sentient life are not what we experience them to be, but something radically different.

[1] As in Ludwig Büchner's *Force and Matter*.

"Forces" were invented originally to explain departures from the supposed "simple natural" fact that motion tends to persist unchanged in amount and direction. Accepted as "causes" of change in this field, they were found useful in other quarters as well. There arose a group of *distinct and separate* "forces," which could be discussed as balancing one another statically or as compelling changes in the dynamic of Nature (molar forces, heat, gravity, cohesion, chemical affinity, light, electricity, nerve-force, etc.). "Mental force" was a late addition favoured by a few loose thinkers, not yet, perhaps, quite extinct. "Force," in the singular, was a name for the sum-total of these alleged distinct existents, but it has been used, also, as a synonym for the Proteus "Energy," as in Bain's and Spencer's accounts of the "Persistence of Force," to the production of no little confusion.

"Force" is a command-concept.

"Force," as cause of actual motion or as exerting pressure, as "tendency to motion," was invented originally for use in Mechanics. It provides no revelation of any actual existent operating in the phenomena described. It is a mathematical creation or fiction of practical service to those who think about certain aspects of Nature. It is a command-concept (§ 4) which asserts an entity, of which calculators can say that it is localised or "exerted" here or there, has such or such a direction, and exists in such or such numerically computable amounts. Its soul, so to speak, is our practical need; its body is formed of those ideal feelings of resisted muscular effort which bulk so largely in our lives. All uses of the fiction "Force" retain this atmosphere of muscular exertion; forces are even now discussed

as " exerting " pressure. " Force," in brief, has no place in the actual reality of Nature. As present in our thinking *about* Nature, it is a concept, compact of muscular feelings, which subserves calculation.

" Force " has ceded its pride of place to " Energy " and " Energetics," so far as cosmological hypothesis is concerned. And metaphysics, let us add, has no use for this sham-entity. We need not inquire gravely whether ultimate reality consists of " Force " or " forces " ; whether the discredited material units of the materialist ought to be viewed as the meeting-points of " forces " and so on. We cannot interpret reality as consisting only of our ideal muscular feelings ! The Force-concept for metaphysics is sterile.

A passing further reference to this concept during a later discussion (Part II. Chap. IV.) will exhaust its interest for us.

On " Energy " as Ultimate Reality.

§ 9. Sterile, also, are " Energy " and " Energetics." " Energy " introduces us to the concept of the interchangeability of its " forms " in definite quantities. It abolishes thus the alleged coexistence of distinct and separate " forces," and is an admirable calculators' symbol. It is accepted by very many writers, not only as a device of thinking, but as a " definite fundamental existence " independent of this thinking. It is said to show in a variety of " kinetic " modes or to " sleep indefinitely " (Soddy) in numerous " potential " forms without indicating its presence, whether we are able to infer its hidden reality or not. Some thinkers have gone so far as to include conscious processes

among its "kinetic" manifestations or modes, and to make of "Energetics," as thus developed, a comprehensive scheme which is virtually a novel metaphysics. We shall have to recur to this topic at length on more than one occasion. There is a genuine symbolism, not at all easy to interpret, of which we shall have to take account; complications connected with the laws of the "Conservation" and "Degradation" of "Energy" which need careful treatment. But our main objections to "Energy," regarded, as many seem to regard it, as an ultimate all-explanatory reality, the ground alike of Nature and sentient life, can be stated forthwith.

Difficulties.

In listening to accounts of the prowess of "Energy" you may well be swayed by a passing illusion that it promises well. You are the seat of intense *activity*, of "go," yourself; and you can almost feel, as it were, an answering activity in things around. The "deadness" of the old materialists' "matter" seems left behind. But what, after all, is the active agent, to which you are being introduced, "Energy," the conveniently measurable entity which is supposed to be somehow identical throughout its protean forms, kinetic and potential? You will find that nobody can tell you clearly. "Its" transformations are of an "It" that never shows unambiguously—not even in the "kinetic" events. What is the entity which in sound, heat, light, electricity, molar movements, etc. etc., evades you in its very changes? What is that, the name of which suggests sleepless activity, which, nevertheless, can "sleep," it is said, soundly in its "potential" forms, in nitroglycerine, a mountain lake, or a nerve-centre? "Only the temporary changes

in the form and relative amount of energy . . . are manifest. So long as energy neither changes in amount nor position in space, it belongs to the unseen and eternal. No direct evidence of its existence can be obtained," writes a distinguished believer in its reality.[1] Its elusiveness now begins to annoy you. When "Energy" sallies forth in its kinetic forms, it is not any one of these in particular, and at other times it is not even to be found! At this stage you hear men murmuring a phrase to the effect that it is "capacity for work." Now this characterisation of "Energy" as "capacity for work" means that it may be an admirable calculators' symbol, as it undoubtedly is. But it means, also, that no system of "Energetics" will serve our purpose as metaphysicians, that is to say, as persons who want to know something about the character of ultimate reality.

"Energy" not the stuff of which the universe consists.

"Energy" is not the motherstuff of phenomena. We cannot consent to reduce the universe to "capacity" or "capacities for work." "Capacity" seems thin! And *what* is "working" and what is the "work" that is being done? The view from the Matterhorn and the sorrows of Werther are still with us. They are—just what they are felt to be. Why assert, then, that they are *something else*, when you cannot even point out what that something is?

The attempt to derive a sunset or conscious individuals from "capacities for work" seems unpromising. But, if you take "Energy" too seriously, you will certainly have this job on your hands.

[1] Prof. F. Soddy, F.R.S., in *Matter and Energy*, pp. 32–3.

Cease the misuse of "Energy" and these absurdities vanish. "Energy" is not the stuff of which the universe consists. It is a feigned or Command-entity (§ 4) and would never have been invented, had not men wanted certain measurements for practical ends—measurements facilitated by belief in an entity continuous and identical throughout its modes. Why is this entity present so vaguely in its inventors' minds? Why cannot men, in talking of it, say precisely of *what* they are thinking? Why do they fall back on phrases when hard pressed? Because the phenomena, asserted to be transformations of "Energy," are *too varied*. Colours, taste, neuralgia, plant-growth, explosions, the running of a motor-car, the writing of *Paradise Lost*, enjoyment of a sonata or picture—these and myriads of other contrasted phenomena have been supposed to manifest "Energy." "Energy" is lost in the indefinite variety of its alleged "modes." What is there common to potential "Energy" in a steel spring and the "Energy" which, you contend, is being transformed in a sunset, a chemical combination or moral effort? Clearly the mental representation of "Energy" has to be indeterminate, *i.e.* such that one cannot say precisely what it is in contrast with what it is not. Its soul, as that of "Force," is our need; that need is what prompts us to create it. Its body, however, is different from that of "Force." It does not consist of ideal muscular effort which is felt faintly whenever we talk of its amount. It consists of a much more suitable stuff, of the vague unanalysed feeling of general organic happening which is always with us. Failing this body, it would move in too rare an atmosphere to hold attention. "Energy,"

What it is.

in fine, is an imaginal creation very useful to think with; but wrongly supposed by some to mirror faithfully in thought a corresponding reality present in the things thought about. The alleged reality in question is never discoverable, and its characterisation as "capacity for work" is a way of abandoning the quest.

Out of what stuff is the concept of "Energy" created?

Thus the entrance of "Energy" into metaphysics is quite absurd. Nevertheless, those who reject the old materialism, but like, withal, its campaign against any and every philosophy of spirit (*i.e.* any attitude which treats the universe as a psychical reality such as we know directly in ourselves), are prone to welcome it. And, talking about it as ultimate reality, they move toward agnosticism, the cult of the "Unknowable." The stages of this strange rake's progress are as follows. Verification of the "Energy" hypothesis is defeated by experience. "Energy" is never revealed by (but always lurking behind) the particular transformation which is in view. "Its" alleged modes are too varied. The "potential" Energy ascribed to the steel spring, and the Energy metamorphosing itself in a sunset, a chemical change, or in "work" on the differential calculus, look so utterly different! Energy is to be everywhere, and yet nowhere is it found naked and unashamed. How is the belief in it to be saved? Energy must be made the "underlier" or substance of phenomena, their unknowable ground. And slowly there results a cult of this UNKNOWABLE ground: a cult, however, which cannot preserve strictly that lack of knowledge which it affects. To begin with, the UNKNOWABLE is greeted as the infinite and eternal "Energy"

"Energy" and agnostic metaphysics.

whence all phenomena proceed. And that is to say a good deal! Its votaries, each and all, will be sure to say more about It later. This procedure may seem inconsistency itself in act, but it is certainly that of, at least, one great philosopher whose voice has had power to make history.

Energy-speculation, treated as *symbolism*, is to confront us again in Part II. and Part III. It presents complications which cannot possibly be dodged. But its failure to provide a foundation for metaphysics is now obvious. And that for the moment is the main consideration to which we attach weight.

CHAPTER III

ON SOME REPRESENTATIVE HYPOTHESES AS TO THE CHARACTER OF THE GROUND OR GROUNDS (*continued*)

2. Scholastic Theism

The Theistic Hypothesis.

§ 1. This Theism is the hypothesis that the Ground of phenomena, the source and sustainer of reality, is a conscious person. It inclines, nevertheless, to divide the domain of reality, as it now exists, between this hypothetical person and a created Nature, which has indefinitely numerous finite sentients implicated with it. This Nature, in its frame of space and time, can be discussed in various ways. Thus in the theistic Cartesian system it is reduced to modes of extension; is treated, in the main, as a mechanism such as we have already noticed (Chap. II. § 7). It can be reduced similarly to modes of "Energy" or, again, to combinations of "Matter" and "Energy," not exempt, perhaps, from occasional interventions by the creator. It can, also, be treated less artificially as of one tissue with the contents of our experience when we are said to perceive sensible things. This way lies idealism—a form of that idealism which allows that Nature is not merely private to ourselves. A purely agnostic view of Nature, cutting it off wholly from conscious experience, can, also, be mooted. But it cannot com-

mend itself to Theists, for a radically unknowable Nature, a domain by definition shut off from conscious experience, would be outside the divine experience as well as ours. It is a view which would screen from God the very world which He is said to have created. God would be a Power compelled to work in the dark!

I do not propose to re-discuss the mechanistic and allied views of Nature already dealt with. And the case for idealistic Nature-philosophy has yet to be stated. I wish to accept Nature as a province of reality forming, at any rate, an important aspect of the universe, but one about the character of which we need not, for the moment, say much. The point of paramount present importance is the standing of the God who is said to create and confront this Nature and its implicated finite individuals. What *verification* is available for hypothesis of this Theistic type? If we face this issue honestly, we shall achieve one great triumph at least. We shall realise how undogmatic, tentative, and experimental any genuine outreaching to truth in this kind of inquiry must be.

Scholastic and other forms of Theism.

§ 2. We are discussing only certain representative hypotheses as to the Ground. And note that we are dealing only with that special form of Theism which supposes God to be the infinite personal creator; with the idea of God as he is wanted for philosophy by Descartes, the God whose claims are investigated with such rigour by Kant; the God whom Scholasticism adored as "the sum-total of all Reality and Perfection." There is, we must recall, a very important hypothesis to the effect

that God is finite or limited,[1] in breadth of being, power, wisdom or moral excellence, or even in all these respects alike; and weighty matter has been written in this connection by John Stuart Mill, William James, F. C. S. Schiller, and others.[2] But we are going to defer examination of this form of Theism to a later stage, into which it will fall naturally. We can, perhaps, assert truthfully the reality of a finite god or even gods, in the sense of conscious powers of a superhuman order, some at least exalted immeasurably above ourselves, though not perfect as the ideal of "Infinite Perfection" exacts.[3] Men are inclined to regard such powers as benevolent, but it may be necessary to infer malevolent superhumans as well: a decision must depend on what the available evidence suggests. What, however, I desire to urge now is that we are not discussing a power or powers, limited by some inward necessity, or by realities other than themselves, *within* Ultimate Reality. The giant finite and the dwarf finite need not, for the moment, be parted in our thought. Both alike are points only *within* Ultimate Reality—bubbles on the ocean of the infinite. We are considering the ocean.

And that ocean, the hypothesis asserts, is a conscious Person, conceived as perfectly wise, all-powerful, and ideally moral ("holy"). We must

[1] The actual practices of worshippers show that the majority put their trust in a *finite* being whom they desire to invoke as an Ally.

"May God Almighty grant His aid
To Keswick and its woollen trade!"

[2] *Cf.* also *Individual and Reality*, pp. 239–40.

[3] Cf. *Individual and Reality*, Part III. chap. vii. "The Destiny of Individuals."

Insincere discussions.

be quite clear on the point. Discussions of this sort are too often insincere. We must not tolerate, for instance, the substitution of a timeless, static Absolute, spiritual but superpersonal, for the personal Deity supposed. There is a stale old device which consists in arguing for a frozen Absolute of the Hegelian type and talking anon to the uncritical as if *this* was the conscious Person all-wise, all-powerful, all-holy, in whose service Christian theologians have fought! It is to be feared that theoretical interests are not always the sole promptings that move men to philosophical thinking.

The hypothesis, then, asserts that Infinite Perfection is embraced by a conscious Person. But, perhaps, you resent the term hypothesis—you appeal unto "Faith" or a special light, called "intuition," and you rate their deliverances above those obtainable by intellectual inquiry?

The alleged testimony of Faith and Intuition.

§ 3. Faith is foreign to philosophy, the critical and open-eyed rethinking of things. It seeks too often to compel or feign belief in what cannot possibly be true. And it speaks to gladden the heart rather than fill the head, and, alas! in a thousand conflicting voices. As regards "intuition," we have discussed its claims before (Introduction, § 5, "Intuition and Hypothesis"). There are, indeed, genuine illuministic intuitions, but the hypotheses based on them ought to be tested by experience; ought not to be thrown at us, like bones to a dog, to be devoured without question. "Intuitions" which do not comprise a portion, at least, of the reality said to be "intuited," and which do not enable those having them to *indicate* their

discoveries to others, may be dismissed as worthless. Alleged illuministic intuitions ought to herald patient verification and exposition. Accepted with neglect of verification, they lead the most able philosophers astray. "These philosophers in a hurry want a secure basis for thinking. But, as each one wants a different basis, there results disagreement as to what intuition attests. *Quot homines, tot dei*—or even Absolutes! This man adores a personal, and often rude, Jewish, Mohammedan, or Miltonic god; another, *e.g.* Schelling, sights a spiritual Absolute; another, *e.g.* Spencer, with his 'indefinite consciousness,' an unknowable Absolute. Intuitionism, like Faith, gives rise to a babel of discordant voices." [1] In India, Intuition may declare that Ultimate Reality is of the character of Knowledge and Bliss, in Germany and in the person of Schopenhauer that it is bald Will! On a lower level, the Kaiser of 1916, with his Stone-Age morality, is "intuitively" certain that he is the agent of a holy God. Rival "intuitionists" protest.

Illuministic intuitions, at first, concern only the individual who enjoys them. If they are to be proffered to others as well, they must come in a shape which courts verification. And that is to say that they must take the form of hypotheses and enter into some systematic plan of thinking which connects them, in the process of being verified, with the rest of experience. We cannot profit by mumbling assertions which, until verified, are noises; and we do not want even verified assertions to be entertained, if that were possible, aloof from our remaining knowledge.

[1] *Individual and Reality*, pp. 237–8.

In fine, the gross abuses of the intuition-cult compel caution. An alleged private intuition must be converted into the hypothesis which any and every competent inquirer can test.

The historic case for Scholastic Theism.

§ 4. Now the case for scholastic Theism, "as every schoolboy knows," is dealt with very effectively by Kant in his criticism of the so-called Ontological, Cosmological, and Teleological Arguments. I am stating here what appear to be the main defects of these ways of inferring the ...ity of God: of the Infinite Perfection which is also a conscious Person.

The Ontological Argument.

§ 5. The Ontological Argument (which, in its Cartesian form, holds that the concept of a completely perfect being implies the *necessary* existence of its "object")[1] tries to pass from thought to reality beyond and independent of thought. Kant demurs that there is no march from mere concepts to reality independent of them. Let us put the criticism in a modern form, with such additions as may prove relevant.

(1) A large portion of our conceptual thought is useful rather than true, or, again, may be of that command-type which we have discussed very recently (Chap. II. § 4); the type which commands its "object" to flash into being and feigns that this

[1] On these lines God is *conceived* as a completely perfect Being. Non-existence is an imperfection. Therefore the conception of the perfect Being implies that he exists really in himself and not simply in Descartes' thought. The existence, on penalty of self-contradiction, follows *logically* from the definition of a perfect Being.

result is achieved. In this way a conceptual God may be wholly private to the thinking of the individual who conceives him; "implications," even if "necessary" (which may mean "formally consistent" and nothing more) in the conceptual field, do not carry him inevitably beyond it—to reality existing in its own right, whether there is a conceiving of it or not. No merely conceptual proof of the reality of God ought to carry any weight. *Concepts are forms of imagination which may illustrate only the initiative of the individual.*

(2) Not every one would conceive "most perfect and real" being, the "sum-total of all Reality and Perfection," as a person. And those who restate the Ontological Argument in the Hegelian way have often, in fact, discarded the concept of a Person for that of a superpersonal Absolute. Once more we see that the concept used marks the private initiative of the individual. Obviously an Argument which can be manipulated in this manner is of no use to Theism at all.

The Cosmological Argument.

§ 6. The Cosmological Argument (*a contingentiâ mundi*) tries to work back from "contingent" things and events, which could be conceived as well not to occur as to occur, to their absolutely "*necessary*" Ground. It is urged that this Ground is the "most perfect and real" being, the "sum-total of all Reality and Perfection," whereupon, of course, the conceptual trifling of the Ontological Argument takes place over again. What has been said in § 5 applies, therefore, to this line of "proof" as well.

The statement of the Cosmological Argument has

been amended by idealists.[1] But the failure of the contention, *in respect of Theism*, is apparent once and for all. No one can show, within the limits of the argument, why a "necessary" Ground—if such there be—should be regarded as a personal God. Such a concept belongs to the sphere of the individual conceiver; is (not, as Kant would say, a "regulative" *a priori* "Idea of the Reason" but) an imaginal invention wherewith *some* men, but by no means all, try to complete their thinking. The necessary God exists, but only in such heads as require His aid. There is no call, as yet, to believe that He exists in His own right.

The Teleological Argument.

§ 7. The Teleological or Design Argument is, undoubtedly, the most popular of the three. But, at best, it could only furnish evidence of a designer (or designers) who confronts Nature and History and orders them in conformity with ends. It has in view the architect, but not the material on which the architect works. The Νοῦς only shapes a given variety. But to infer a finite god (or gods) would not suffice. We are in quest of a *creative* God, who is manifest *in design and the field of the design alike*. To infer this creative God we shall have to appeal to the discredited Cosmological and Ontological Arguments again.

Note, also, that we are not in a position to infer that the hypothetical architect or designer is "perfectly" wise, nothing perfect being found in this world. A present-day Kant would cite the defects to be noted even in the case of the human eye. And the evils that do not subserve, but merely mar,

[1] Cf. *Individual and Reality*, p. 246 *et seq.*

the story of conscious life are beyond counting. In fact, the architect (or architects) appears to show a "prentice hand" in many quarters, rendering the *degree* of wisdom to be ascribed to him quite problematical. Add that, in the words of the clerical philosopher, Dean Mansel, the "representation of god after the highest human morality" is insufficient to "account for" all the facts; and a fresh difficulty will arise as to the *degree* of holiness to be asserted. Are we, then, to hold that the "Sum-total of all Reality and Perfection" is found in a Finite Being (or Beings) who merely plays a part in the Universe and who, at the best, can only be discussed as very wise and very moral? Yet the Design Argument, as employed by scholastic Theism, offers no more alluring prospect than this.[1]

There is a minor form of the Argument which infers a Designer solely to account for the birth of the "moral nature" of man. It is exposed to the objections already stated and to novel ones which the actual history of morals suggests. And it leaves unexplained that profoundly "immoral nature" which is thrust on individuals by agencies other than themselves, agencies of the very world-order which the Designer is said to shape. Thus the passion of cruelty, one of the most vile aspects of human character, comes to many individuals unsought. It is part of the "heredity" from that struggle which has marked Evolution. And this

[1] Kant ultimately reinstates God as a moral postulate. This is not offered, of course, as an Argument. The defect of such a postulate is that it leaves the serious inquirer a prey to doubt in times of stress. It may be very useful in a social regard, but what is useful is unfortunately not always true.

struggle was, by supposition, part of the Designer's plan.

On "Immanent" as contrasted with "Contingent" Design.

§ 8. There is an idealism which gets rid of a design contingent to, and somehow thrust on, things. But its notion of a design *native to*, or immanent in, reality, a "form" belonging to the "content" which shows it, has no special value for Theism; abolishes, in fact, that contingency which Theism, in the old Design Argument, is invoked to deal with.

Ultimate Reality, if spiritual, may well possess that aspect which, as unfolded in the time-order, we call "immanent purposiveness." We cannot, however, ignore the riddles which beset even this solution. The indictment of the world by pessimists has to be answered, and that in a way which dodges no difficulties. An answer of this kind would be one of the best possible tests of the worth of a proposed advance in metaphysics. Is Ultimate Reality, in truth, what our optimists would wish it to be? Can we account for the time-order *without compromising it*? I believe that this consummation, so devoutly to be wished, is open to us.

Futility of any possible argument from "miracle."

§ 9. Before taking leave of the old Design Argument, note how futile it would be to buttress it with accounts of any "miracles" which the story of a planet might contain. I say nothing as to the legendary character of those accounts which are found in the sacred books of the East and West: the objection is to the mistake of principle involved. A remarkable occurrence (say, the raising of the dead

or the destruction of a Continent), which implied the intervention of a Superhuman, working, perhaps, with novel natural agencies, would be of no worth to scholastic Theism. Superhumans, sufficiently wise, potent, and moral, to merit the title of "gods," may be numerous. But belief in one or many such powers, or in one power, supreme in this corner of the cosmos, with subordinate powers at his call, would not help out the old Design Argument. The quest of this Argument is not the reality of a giant finite power, but the "sum-total of all Reality and Perfection" regarded as a Conscious Person. Do you suggest that the Argument seeks too much, and that humanity would be quite content to believe in a finite, but very wise, very powerful and very benevolent God or Gods? Very well. But in that case abandon frankly the old scholastic "Idea of the Reason" and let us hie to some form of Theism, verification of which seems at least possible.

Concluding reflections on Theism.

§ 10. The concept of Ultimate Reality as a personal God is explicable, in part, psychologically by its history. The concept is an imaginal creation, and the stuff out of which it is created is what, in Clifford's language, we may term "Eject." An Eject is a *conscious experience like his own*, which man *ejects* or launches imaginally into perceived things such as organisms, mountains, rivers, sky, etc., and anon into the experienced cosmic order as a whole. In the case of certain things, such as Smith's body as I perceive it, this ejection represents sufficiently well the reality of primary interest (to wit, Smith the sentient individual), and is, therefore, true. In the case of the totality of experienced things the ejection may take the form of a

giant personality. There is produced, what we may call, the cosmic Eject, out of which later is manufactured, by elaborate conceptual finishing processes, the Theistic "sum-total of all Reality and Perfection." Do you urge that this eject-launching brings man ever more near to a Reality which the cosmic Eject, however poorly and darkly, serves to *represent*? I agree. The Reality is of a kind which our own conscious experience samples for us. But I must ask you to carry further your improvement of the Eject. You cannot take over the Eject of the plain man in any event. Not even the traditional Theism does that. Theism has expanded the Eject into a personal "sum-total of all Reality and Perfection." We, too, must be allowed to expand it in our own way, subject always to the claims of verification. It is on this basis that we build. We owe nothing to an *a priori* regulative "Idea of the Reason," may reject outright this artificial supposition of Kant's Critique. A psychological process has provided the starting-point from which we are to push forward to truth.

Raw material of the Concept of a Personal God.

Can the Ground of phenomena be said to be conscious? That is not the same thing as asking if it is a Person. Of this riddle anon. Meanwhile let me point out a strange reflection which ought to vex those who regard it as a Person. Why is *this* Person, and not one of the other indefinitely numerous persons or centres of consciousness, the "sum-total of all Reality and Perfection"? Did Chance, unutterably tragic, allot to one centre of consciousness the sovereignty of the world, to another the petty experience of human life, to yet another the misery of feeling the vivisectors' blades? Look at it

Chance and the Divine Personality.

how you will, this question, once raised, will haunt you henceforth through the years. It admits of no answer from scholastic Theism. In the end you will be driven to inquire whether there exists in any other philosophical quarter a means of abating this nightmare of thought.

Loss of the old scholastic Theism not worth a regret.

Meanwhile we can be sure that the rejection of scholastic Theism will entail no loss worth a regret. Hegel well says that the old discussions as to the "being" of God were "of slight importance." Anything, a stick or stone, merely is: God must not merely *be*; He must be "concrete beyond measure." The scholastic "sum-total of all Reality and Perfection" is too *abstract* to be worth serious belief. In what way does this verbalism lend itself to verification or subserve our living?

The God of the Enlightened.

But the God of the Enlightened is not to be found in the Hegelian Absolute. There is required belief in a beneficent finite conscious Power not ourselves, but intimately allied with us, whose activity includes the raising of our lives on to an ever fuller and richer level. There is no reason why we should despair of finding traces of the working of such a Power, and, perchance, of many such Powers, *within* the measureless expanse of reality.[1]

3. Agnosticism

Agnostic metaphysics.

§ 11. Agnostics flout metaphysics, while propounding a metaphysics of their own. They, too, make hypotheses as to the character of Reality,

[1] *Cf.* Part III. Chap. VI. §§ 2, 3.

just as do avowed metaphysicians such as Descartes, Leibnitz, Hegel, and Schopenhauer.

Agnostic Phenomenalism.

There is an agnostic or ignorance-attitude which restricts our knowledge to bare phenomena ; to the flow of vanishing perceptions, thoughts, volitions, and emotions. It does not say anything about what may lie beyond these—if it allows that anything does so lie. At the first glance we seem to confront merely a refusal to talk metaphysics. But the belief that we cannot get beyond " our " perceptions and thoughts implies metaphysics, *i.e.* a theory about Reality. There is involved a psychological idealism which supposes that each " mind " is conversant only with " its " own " states of consciousness." There is no recognition of an independent Nature. The phenomena of the " so-called " external world, as Bain calls it, have to be treated as portions of the " states of consciousness " of indefinitely numerous " Minds." There is no window opening on to anything beyond.

On these lines all the reality that I know consists of my " states of consciousness " ; there being sometimes the admission that a " Mind," also, is known in the form of the inexplicable " tie " which obtains between these states, a tie which, as Mill urged, is as real as the states themselves, something, in fact, common to them all.

All this is metaphysics, and poor metaphysics at that. The hypothesis is that Reality is found among phenomena of " Minds," which phenomena are the " Minds' " own " states of consciousness." Verifica-

tion fails, because experience reveals no "Mind" shut up within the closed estate of its possessions.[1] All that experience seems to warrant is belief in a centre of conscious life, whose territory lies open to all the winds that blow, whose contents are penetrated by, and of one tissue with, content beyond it.

Its fundamental hypothesis is not supported by experience.

This kind of thought nears the idealistic Nihilism noticed before (Chap. I. § 2). But in Nihilism even the inexplicable "tie" vanishes; there is a complete reduction of experience to discrete psychical "states." This attitude is not a denial of metaphysics; it is metaphysical on erroneous lines. The hypothesis is that sentients are inexplicably separate streams or series of psychical states, in which arise the illusive fictions of "selves" and independent "worlds." The streams or series themselves are declared unreal. At the very outset, of course, verification fails. Sentient experience is quite other than the hypothesis takes it to be. Discrete psychical states are inventions; truthless fictions of an imagining which *ignores the continuum wherein it occurs!*

Its relation to idealistic Nihilism.

§ 12. Nihilistic Phenomenalism tries to get rid of Reality altogether, but, as we have seen already, this attempt is verbal (Chap. I. § 2). Agnostic Phenomenalism places such Reality as it admits *within* the phenomena occurring in "Minds." A more important form of Agnosticism (which rejects psychological idealism) tries to locate Reality at the "Back of Beyont"; in a sequestered retreat, the home of the Thing-in-itself or Noumenon, which

Agnosticism and Herbert Spencer.

[1] Cf. *Individual and Reality*, pp. 103–6, "Am I shut up within 'my' Centre?"

experience can never reach. This attitude is a reaction against the "Romance of the Infinite" as penned by adventurous thinkers such as Hegel and Schelling. It has a practical value in making thinkers cautious. But, as a positive metaphysics, it fails. *With the asserting that Ultimate Reality is unknowable, there goes an inevitable admission that it is also known!* The assertion, for instance, of the "Unknowable" Ground by Herbert Spencer implies, at the outset, that this Ground is known to *be*. Of course, merely to *be*, as Hegel says, is to be miserably abstract and empty. But the "Unknowable," slowly but surely, looms more substantially into view. In an early stage of its career it becomes the infinite "energy" whence all phenomena proceed, and the standing of Space, Time, Causation, etc., with respect to it soon arrests thought.[1] In a much later stage it has become, according to Spencer, not improbably akin to what we know as conscious experience—a likelihood which promises to transform agnostic metaphysics into Idealism. This philosophy of ignorance contains the seeds of its own destruction. Its author opens his inquiry with an "indefinite consciousness" of the "Unknowable." But even an indefinite awareness must suffice to give *some* insight into the character

Hypothesis contains the seeds of its own destruction.

[1] To show how Spencer's Agnosticism belies its name, consider the story of the "Unknowable" in the light of Mill's analysis of the Import of Propositions. Mill holds that (non-verbal) propositions assert or deny (1) Existence, (2) Coexistence, (3) Causation, (4) Sequence, and (5) Resemblance. You will note that the "Unknowable" exists, has modes coexisting or coinhering, modes successive, causally related and modes resembling. The agnostic spirit dies away as Spencer writes, and his system, as indicated in *First Principles*, is a mechanically articulated Monism; physical forces, *e.g.*, generating conscious life.

of the reality awared. And having once thrust the point of this wedge into the "Unknowable," Spencer is more or less compelled to drive it home.

The hypothesis that this Ground is unknowable is one which cannot be stated intelligibly. Either you have no knowledge of this Ground, in which case you cannot say *anything* truthfully about it or, having some knowledge of it, you have converted it, to this extent, into the Known. There is a further embarrassment which is developing. What is the standing of the "phenomena" at which Spencer has glanced so airily? This brave space-hung time-strung Nature, these joys, sufferings, thoughts and desires of all finite experients throughout the worlds surely have reality—*i.e.* a place in the Universe—as well as their Unknowable background? They cannot be left in some metaphysical limbo suspended betwixt Being and non-Being. Nay, there is a possible revolution in view. If, with Herbert Spencer in his later mood, you conceive the background as, perhaps, essentially akin to our conscious experience, in other words, as a psychical reality, you have ceased, indeed, to be an agnostic. But you can now urge that the larger reality is somehow *revealed* in the minor realities of Nature and individual life, which are thus thought as of one tissue with the rest of the Universe.

What the alleged "Unknowable" and the "phenomena" tend to become.

The cult of the "Unknowable," at one time regarded favourably, is only rendered acceptable by what its devotees themselves, unwittingly and illegitimately, supply. It is a more or less veiled spiritual or *Psychical Reality* which is in view, not a mere word about which nothing can be said.

This Psychical Reality, which is revealed in phenomena coequally real with itself, is the true ocean of the Infinite. We are to possess shortly a more adequate insight into its character.

4. Pluralistic Realism

§ 13. The appeal to experience which destroys the agnostic hypotheses destroys, also, hypothesis of a very different type, that of the new pluralistic Realism. This Realism rejects utterly the "subjectivism" which would shut up phenomena within the centres of consciousness experiencing them. It is a kind of radical empiricism which desires to speak of its "existents" and "entities" as they are, independently of us, in themselves. This is why Bertrand Russell urges that philosophical argument ought to be concerned, not to support constructions, but to make the reader "perceive" as the philosopher "perceives." Our business is with realities which the "relation of cognition" does not create or alter. Pluralistic Realism, following up this clue, contends that the Universe consists of an infinite number of independent entities with relations which are ultimate as well, not "adjectives of their terms or of the whole which these compose." Universals, once again in high honour, figure among these independent ultimate realities.

The new Pluralism and its infinitely numerous ultimate realities.

In an age when the best minds are still at war over the very fundamentals of philosophy, this Pluralism is the antithesis of idealistic Absolutism; for which differences melt harmoniously into a spiritual unity. It has not yet taken shape as a completed system, and will, it seems likely, find diffi-

culty in doing so. We are not dwelling on it for three reasons—(1) because it is not yet in systematic form, (2) because it regards *creations of analysis* too readily as *independent* realities, (3) because the best reply we can make to any possible form of pluralism, whether in the direction of realism or idealism, lies in what is to come. Note that we share fully the dislike of these pluralists for "subjectivism," but our revolt is to take a very different form—that of an idealistic realism in which the many obtain a free swing, but do not lie utterly apart, as the standpoint just indicated asserts.

§ 14. Thus pluralistic Realism breaks up the Ground into infinitely numerous, independent "entities." The "relation of cognition" does not create or alter, but rather acquaints us with, these. We, also, are to take note of indefinitely many realities which we do not own or make. But, first, we are to confront the master-experience which is decisive for Idealism in metaphysics; an Idealism, however, which must find room for all the differences which Pluralism accents; an Idealism which shall be free from any taint of "subjectivism," more free, in fact, than is this new Pluralism, one of whose exponents denies that Nature, apart from our perceptions, is coloured at all! Having indicated the basic case for Idealism, we shall consider a few representative hypotheses, as tersely as exigencies allow, and pass on to present our own hypothesis, the case for which is stated in a spirit of experiment which invites, or rather demands, application of the most exacting tests.

The Universe, we shall find, does not consist of

infinitely numerous independent realities. But it comprises features, to be discussed fully in their place, which lend plausibility to the pluralist view that it does.

But neo-Realism of the logico-mathematical type is plausible only in respect of certain aspects of reality. "The new Realism with its 'Two Substances' view and its denial of continuity between mind and its objects, has, indeed, a difficult task when it comes to the phenomena of life" [organic life].[1] Let us add that it breaks down in truth, even in the regard of "inorganic" Nature, since we shall find that Nature-processes are psychical in character and that continuity and discreteness (relative "independence") concur in the same field.

[1] Lord Haldane, *On Progress in Philosophical Research.*

CHAPTER IV

ON SOME REPRESENTATIVE HYPOTHESES AS TO THE CHARACTER OF THE GROUND OR GROUNDS (*continued*)

§ 1. THE new Realism is not realistic enough, does not credit "things" independent of us with a sufficiency of the features which they possess. The basic character of these "things," also, is too easily overlooked. That character is psychical; that is to say, the "things," at bottom, are of the same kind as the "things" which I find even in the penetralia of my private life. Idealism is the attitude which regards Ultimate and Universal Reality as essentially the same as the reality which is awared directly in ourselves. The master-consideration may be put thus. My sentient experience *samples* the character of Reality at large. There is not, and there cannot be, any experience, or evidence based on experience, which warrants belief in reality of a non-psychical kind. Nay, there cannot be a concept of non-psychical reality other than a Command-Concept (Chap. II. § 4) which *feigns*, for the purposes of reasoning, what it cannot summon actually into being. Anything which is genuinely in thought is a psychical complex of "elements" which are themselves psychical facts. And you never can confront, by any means in your power, the occult

Idealism.

My sentient experience samples the character of Reality at large.

A concept of non-psychical reality is only a Command-Concept which mirrors nothing in the universe.

non-psychical existent which this complex may be used to "*mean*." This is why Idealism is the attitude which a radical Empiricist ought to favour. Experience, if it does not confirm completely this hypothesis, can confirm no other in any degree at all.

Idealism must be realistic.

Idealism, however, must close with Realism, if it is to embrace the whole area of empirical fact. It must renounce, accordingly, "subjectivism." There are forms of psychological and subjective Idealism which are grotesque, simply inadequate to the concrete experiences of life. But Idealism in its realistic form—or shall we say Realism in its idealistic form ?—can always find room for fact, and that in a way not offensive even to the plain man. It does not imply, for instance, with Mill, that the Matterhorn is swept out of being when you, I, and other finites cease to be aware of it ; having only a fitful and precarious career or careers (!) as a "permanent possibility of sensation" in detached "minds" or "subjects." It recognises an independent Nature, in which the Matterhorn is a point ; asserting, however, that this Nature is of stuff *such as* ideas are made of. Nature, in Hegelian language, appears not only for us, but in itself. And it must be an appearance indefinitely more rich and complex than any imaginal device of ours, however patiently constructed, can mirror with sufficient truth. Nature is not less, but more, than we aware it to be !

My sentient experience sinks a shaft into Ultimate Reality. I am sure, accordingly, that Reality, in so far as it consists of sentient experients, includes in its wealth psychical fact. As an idealist I go further and suppose that Reality at large is psychical

through and through. There is no call, as we saw, for belief in any non-psychical existent whatever. Experience can verify only in terms of itself. Nevertheless, very many persons find a difficulty in allowing that *all* existents are psychical. Even if they believe in a Divine Experience, as well as in ordinarily recognised finite experients, they hesitate to admit that this block of Psychical Reality quite exhausts the Universe. Their obstacle lies in Nature, which seems to them unassimilable on "psychical" lines. They incline to contrast this "brute" Nature, in its frame of Space and Time, with any kind of psychical existence actual or possible. They find it, withal, a surd very awkward to accommodate. Of what does it consist, and how did it come to exist over against that which is psychical and which cannot, to all seeming, account for it? Is not some form of dualism imposed? We have dealt with this embarrassment before, but, for the sake of emphasis, shall return to the topic again and again.

Why some find a difficulty in believing that *all* existents are psychical.

Now, why is "Nature" regarded as an obstacle of this type? The answer is that, in this embarrassment, the engineer is hoisted by his own petard. These folk are the victims of their own creation—of a secondary *conceptual Nature*, which is unlike what they call a psychical reality, because they have made it so. *Actual experienced Nature* lends itself at once to inclusion in a Universe of psychical reality.

They confuse a secondary *conceptual* Nature with Nature as it is actually *perceived*.

When you say that Nature, *as you perceive it*, is modes of "Matter" or "Energy," etc., "in" Space and Time, you are not recording experience

(Chap. II. § 7), as uncritical users of concepts naïvely assume. You are awaring gaunt mental substitute-facts or thought-instruments, useful of course, but miserable makeshifts for the original experiences for which they stand. "Matter," "Energy," and even the *concepts* Space and Time are secondary; with the rise of these imaginal shadows you have left primary Nature behind. You are dealing with Nature *as you conceive it.* And a whittled-down conceptual cosmos is, indeed, too "brute," mechanical, and sterile to be included in a Psychical Universe. But this is your own doing. You have stripped Nature of nearly all its sensible wealth, and now you grumble at the pitiful result. You cannot understand how this world of bare resisting-extensions or "energies" can drop into place in a Psychical Whole. I should be in like case. But Nature, as I look at it, presents no such difficulty.

The Cure—Get back to Experience.

The cure for your complaint is simple enough. You must get back to the Nature of the poet and unsophisticated man—to the view from the Matterhorn, to sensible reality in its full complexity of detail (Chap. II. § 7). And *this* Nature, the Nature which is actually *perceived*, falls easily into a psychical scheme.

Consider! *There is nothing present to perception which could not be duplicated exactly in a merely dreaming experience.* Mere dreaming, were it sufficiently vivid, could hold a Nature identical, *for you*, with what you perceive from the Matterhorn. Do you urge that the Matterhorn panorama is "in space," and that psychical fact, such as a dream, is not in space or spatial at all? There is a

little mistake here. These perceived colours, lights, and shades are not "in space," if by space you mean that homogeneous abstract Extension, or "room" for movement, which is our *conceptual* invention. The primary Nature-Space is just the ORDER of the colours, etc., as coexisting; an order which presupposes the colours, etc., and would vanish if they were to vanish.[1] Space, in the hypothetical Cosmic Imagination, would be just this ORDER, not a Frame or Form, an emptiness of abstract positions, which gapes, as it were, to receive anything that may come to it! Similarly, my dream-Nature would equally not be "*in* space," in the above-noted sense of the term, but it would equally comprise a space-ORDER and be, to this extent, spatial. There is no essential difference between the height, breadth, and length of a thing visually perceived and that of the same thing when vividly remembered. In other words, the perceived and the remembered or dreamt thing are alike spatial. In fact, my dreamt thing, in the absence of a competing kind of thing, *is* a "perceived" thing, though one private, as a rule, to the experience which I enjoy.[2]

The Matterhorn as perceived could be duplicated exactly in a *dreaming experience* admittedly psychical.

The Space-question will be treated adequately later. Meanwhile I must insist, again, that "There is nothing present to perception which could not be duplicated exactly in a dreaming experience": reality which is of an admittedly psychical character. But if the Nature of my normal perceiving and the Nature of my dreaming could be, for me, *indistinguishable*, what is the mysterious "psychical"

[1] Cf. *Individual and Reality*, pp. 140 and 276.

[2] "As a rule." There are facts in the sphere of Psychical Research which impose caution.

barrier between the two? You and all persons agree in labelling my dream a "psychical" fact. Good. Then how will you label that from which it is indistinguishable? Ah! you may reply, the normally perceived Matterhorn is a glimpse of what exists also, and in a more complete way, *in itself*, whether you are aware of it or not. That is true. But suppose that this existence "in itself" is just presence to a Giant Cosmic Reality which is psychical through and through—suppose that a Cosmic Imagination contains the Matterhorn which, in perception, I barely glimpse. You will at once understand why the perceived and the dream Matterhorn are so extraordinarily alike. The perceived Mountain, it is clear, refers me to an original of a thoroughly psychical character. Need I be surprised that this perception can be copied by yet another psychical existent, to wit a dream? Surely not. Reality, whether with me or beyond me, is seen to be all of one tissue.

What is meant by the statement that the Matterhorn exists "in itself"?

Thus Idealistic Realism restores to us sensible Nature in all its glory. And it does not perpetrate the assertion that Nature belongs to our "Minds." Say, rather, that Nature shows itself fragmentarily and, in different ways, to different centres or *circles of conscious life*, and implies inevitably a larger cosmic Nature beyond these. Hegel observes that "the things that we know about are mere phenomena, not for us, but in their own nature and without our interference; and these things, finite as they are, are appropriately described when we say that their being is established not on themselves, but on the divine and universal IDEA."[1] We shall con-

[1] *Logic of Hegel*, Wallace's trans., p. 79.

ceive the "IDEA" otherwise than did Hegel. But the objective character of his idealism leaps to the eye, and we shall incline henceforth to put our trust in a solution of this type.

5. LEIBNITZ AND THE HYPOTHESIS OF THE MONADS

§ 2. This hypothesis supposes a Divine Monad, along with subordinate monads of all grades, as ultimate realities. It is a type of explanation of the Universe on idealistic lines. The defects are that (1) there is no empirical support for the belief in monads, and (2) the idealism resulting is too subjective: it fails to render intelligible the actual contents which our workaday experience presents.

Definition of the Monad.

The concept of the monad is that of the old impenetrable "atom," excluding from its sphere of existence all other "atoms," spiritualised. The monad is definable as a self-contained centre of conscious experience (actual or possible). Each contains the infinite whole of existence, though not, save in the case of the supreme monad, consciously. It is without windows: nothing comes into it or goes out of it. Leibnitz had argued against Spinoza that "Substance" is not an inert universal, but *self-active*, and that, in place of One "Substance," we must recognise Many—an infinite plurality. His revolt from the inert "One" awakens wide sympathy to-day ("the Many is a far more valuable principle than the One"[1]) and finds support even

[1] F. C. S. Schiller, *Riddles of the Sphinx*, p. 340, who considers Monism merely "parasitic," as it lives on the interactions of the plural existents which it is supposed to include.

in those pluralisms which are no longer idealistic at all.

Our indebtedness to Leibnitz.

Our great debt to Leibnitz is incurred by his interpretation of the Universe as the field of indefinitely numerous *psychical existents* or lives. It is this view which reappears in later amended monadologies such as are connected with the names of Herbart and Lotze, and with the very interesting world hypotheses which are submitted in F. C. S. Schiller's *Riddles of the Sphinx*. These monadistic pluralisms emphasise vital aspects of reality altogether lost sight of in the cult of a numerically conceived "One"; the product of an assimilation or identifying of things carried to excess. Such vital aspects will interest us anon.

Leibnitz is, also, so far as I know, the first thinker in modern philosophy who made use of the concept of a psychical activity which need not be conscious. No subordinate monad is conscious of all its contents, which are infinite. What systems have grown out of the fertile suggestion made here!

Experience does not verify the hypothesis of the monads.

How is the hypothesis of the monads, in their Leibnitzian guise, to be tested? In this way. If I want to believe in a system of these "windowless" entities, I must, as an alleged self-contained unit, begin by establishing the reality of my own monad. If *this* monad shows somehow in my experience, then I can proceed to infer that there are, also, other monads active beyond my experience. But if *this* monad is undiscoverable, I shall have to abandon the hypothesis. Leibnitz, it is true, did his "proving" conceptually on the lines

of the "clear and distinct" idea; the concept of the monad was justified as being clear and distinct just as was the Ontological Argument about God by Descartes. But such conceptual gymnastic is no longer relevant. What I have to ask is whether *experience*, when closely interrogated, reveals the alleged monad and in this sole available way makes the hypothesis true? The reply is that Experience reveals not a discrete "mind" or windowless monad, but rather a centre or circle of conscious content which is *open* to an enveloping world-order. The hypothesis that this circle is closed is unsatisfactory. All that I can say is that the conscious experiences of other human, animal, etc., circles, *as they are for themselves*, do not appear within the experience-circle called mine. In other respects I seem to be open territory indeed.[1]

The Leibnitzian monads, being "windowless," do not interact. Hence the Pre-established Harmony and a peculiar Theism were invented to bring their activities into accord. Later writers have bestowed "windows" on the monads. These latter become *psychical existents with limited contents*. They act and react on one another, are penetrated by one another; have lost, in fact, that self-containedness in which the Leibnitzian monad reigned alone. But, even so, it is not easy to *relate* them. What man has put asunder, he cannot always join again, and success may be achieved only by verbal device. Thus the "reals" of Herbart hardly work satisfactorily in his "intelligible space"; existents which make their débuts as points behave later like so many balls. It is clear, nevertheless, that if more

Leibnitz—and after.

[1] *Individual and Reality*, p. 104.

or less discrete psychical existents, monadic or other, are to figure in metaphysics, something must be done to clear up the mystery of the relations in which they stand.

6. Clifford and the Hypothesis of "Mindstuff"

§ 3. This is a sham idealism; it intends to say that reality is psychical and implies, incidentally, that it is not. The hypothesis is to the effect that there obtains an elementary diffused mindstuff which exists in pieces subject to "laws" analogous to those which are called material "laws." This stuff can be concentrated, aggregated, or integrated into complexes, constituting the much discussed "noumena" or things-in-themselves, that writers, like Kant, place behind perceived objects. Integrated into organisms, the stuff or stuffs show additionally, in connection with the cerebral machinery, as conscious life.

A sham idealism, really a form of Materialism.

The pieces of mindstuff and their "laws" are our old friends the "material units" and "laws" of the materialists (Chap. II. § 7), renamed and thought as carrying sentiency in bits. The same procedure characterises both schools of philosophy, viz. the assumption of *very simple* ultimates and the derivation of all else from these by complicating their relations. This complication is conceived to occur in "Space," which is given—none can say how or why—as the field of operations.[1] You cannot spread out pieces of stuff and integrate or

[1] How often "Space" is thus taken for granted!

disintegrate them unless there is available a void, with room for movement.

This scheme of a void peopled, here with diffused mindstuff, there with integrated bits of it,—conscious life happening in connection with some few of the integrated bits,—is an excellent illustration of what we called the Fallacy of Simplicity. It is just the sort of speculation which one expects from a mathematician, such as was Clifford. These "dry" abstract thinkers leave actual experience too much ignored. The idol of their tribe is Simplicity. But, as Hegel pointed out long ago, simplicity without complexity is a dead thing. In metaphysics, indeed, if you sow with simplicity, you will get no harvest.

The Fallacy of Simplicity over again!

No one could verify the hypothesis by direct experience; no one could aware isolated, and aloof from their integrations, the tiny "bits" that combine into the colours, neuralgias, tastes, indignations, artistic emotions, scientific analyses, etc., which are present to him. These *merely* discrete "bits" of mindstuff are the creation of conceptual thought; fictions in this case neither true nor useful. And, again, no one working only with these fictitious units could deduce the conscious wholeness in which the colours, neuralgias, etc., appear. *Consciousness is itself the fact that experience is, not an assemblage of discretes, but a continuum!* And the reality of this continuum needs at least as much attention from us as any of the contents which are known *together* (*con*-scire) in it. The theory of integration has overlooked the most serious difficulty of all.

7. Schopenhauer and the Hypothesis of Will

§ 4. Ultimate Reality for Schopenhauer is *Will*. The Universe, which he regards as psychical, is understood by following up a clue found in our experience. This clue is obtained by emphasising the willing, at the expense of the knowing, *aspects* of conscious life. His attitude was heralded by that of Fichte who, in the *Vocation of Man*, had assigned to the practical reason concerned with action a primacy over thought that is merely contemplative, urging, indeed, that thought is "founded on our striving energies." Elsewhere Fichte had maintained that "will is in a special sense the essence of reason," that "the whole system of our ideas depends upon our impulses and our will," and that thinking is purposive, the meaning of our thoughts depending on our purpose in framing them —modern pragmatism itself in the germ! One notes like stray statements from the pen of Schelling. Add to these suggestions the need of some substitute for the detested system of Hegel, and you have the main promptings which moved Schopenhauer to suppose that the Ground of phenomena is Will.

Why Schopenhauer supposed that Ultimate Reality is Will.

Presuming the reader's acquaintance with Schopenhauer's system, I confine myself to the minimum of relevant criticism.

In framing this concept of the Will, you have to shut your eyes to the knowing or cognitive side of conscious life. In the first place, consciousness is dropped. In the second place, the ideal content, which guides all empirical willing, is dropped. There

is born, accordingly, the concept of a dark Power at once *without consciousness and blind*, because devoid of cognitive guidance. And Schopenhauer makes full use of this Power in the interest of pessimism. His great popularity rests less upon his metaphysics than upon his indictment of life and his biting account of the martyrdom and miseries of mankind. University-philosophy is apt to lose sight of our grim and, in many ways, infernal world in its cult of an Absolute of all the Perfections, invented in Greece. Plain people, intolerant of such trifling, want to know how belief in this Absolute squares with knowledge of the abominations which Reality contains. *Why is the visible part of Heaven, in the main, Hell?* Schopenhauer is the leader of these hosts. He, at any rate, has that leaven of humanism which University-philosophy too frequently lacks. And after all, say what we may, the riddle of this grim world must be confronted by any metaphysics worth the name. *We* are the most important realities which we ever discuss. *We*, the individuals, can smile amid the crash of Absolutes —always supposing that *our* destiny is to prosper and expand. And failing *our* good fortune in the future, not one of the ideals exalted by religion or philosophy is worth a rush.

Schopenhauer attacks the Absolute of all the Perfections.

Why is the visible part of Heaven, in the main, Hell?

"For what may I hope?" Kant recognised this question as of vital moment. Schopenhauer answered it with pessimism, the language of despair. The time-order is incurably evil and sentient life ought to be extinguished—he tells us. If we have to be content with this answer, I append a supplement. "If I am to persist, I incline to live accordingly— to develop in ways which may demand effort, but

The corollary of Pessimism.

are worthy of a being *who expects to endure*. But if I am to perish, I shall be wise to spare effort, to tread easy and rose-strewn paths. It were folly to be a master-builder when the fane contemplated *must* be overthrown. There is merriment, too, below the heights of endeavour. Amaryllis is good company, and need not be troubled to rock a cradle. I am reminded, withal, by Comtists that I have duties toward the *Grand Être*—to wit, Mankind. Am I to bow the knee to this shambling mortal god? I recall that the *Grand Être* must surely die—die shamefully when the last human being plunges into eternal night. And I am in doubt as to how far I ought to encourage his futile and purposeless life. His march is over millions of victims; and annihilation, I learn, is the goal ahead. There are those who wax enthusiastic over this crazy march. Retaining some sense of humour, I laugh outright. . . . The *Grand Être* acts as if the higher progress mattered, whereas, in sooth, it profits him little, if at all. A Gospel of Decadence were timely. To the Abyss! Pleasant trifling and Euthanasia: these are ideals meet for a perishing god. *Grand Être!* Abandon the strenuous life; vex yourself no longer with exacting ideals. Take your fill of enjoyment, whatever it be, while you may. 'High' and 'low,' 'good' and 'bad,' 'lofty' and 'base'—sounds like these will not break the silence into which you must pass. Whether you are a sad Socrates or pig happy, 'twill all come to the same thing in the end. Why, then, ask sacrifices of me, a pilgrim who has so very little to give? My respect for you is sapped by knowledge: I have come to realise that your very existence is absurd. All is vain, all futile, all ridiculous: over the ruins

of effort must steal the shadows of Cimmerian night." [1]

We owe it to Schopenhauer that the evil of the actually experienced world has come to figure so prominently among the problems of philosophy. University lecturers are apt to live in the clouds, telling us of vain unverifiable secrets about the Back of Beyont. Poets are prone to think "all 's well" because "God 's in his Heaven," when in truth things are not well and God and his Heaven, as the poet understands them, are dreams. The visible domain of reality is, in part, Hell ; a world squalid at best, radically imperfect, and noisome with misery and failure. *Schopenhauer has forced philosophy to face the riddle,* not to play with it any longer on Leibnitzian, Hegelian, and other academic lines. But his answer to Kant's query is dismal—Hope there is none. The blind Will has created a bad world, and sentients are born only to suffer and perish. Our task, if we are to be meliorists or believers in betterment, is to confront the same riddle and not to consider that we are serious with metaphysics until we have found an adequate answer.

Schopenhauer has forced philosophy to face the evils of life.

To return to the Will :—On Schopenhauer's lines the world has got to be a failure. You cannot suppose that an unconscious blind Will manifests in a time-order immanently purposive. *La plus jolie fille du monde ne peut donner que ce qu'elle a.* But is his dark Power properly labelled Will ? It cannot resemble the empirical willing which is *all* we know. There are no deliberate volitions, or even mere instinctual and impulsive acts, attended

Experience does not verify the Hypothesis of the Will.

[1] *Individual and Reality,* pp. 317-19.

with consciousness, which are bare of guiding perceptions and ideas. Even a chick does not give its first peck without sensation to evoke and guide the stroke.

There is no experience to verify the hypothesis that Ultimate Reality is Will, if by Will is meant anything like my activity when I am writing this paragraph or driving a motor-car. All such "striving energies" are saturated with "ideas" and, failing these, would not exist. But if the Will, a Ground conceived, in some unintelligible way, as above time, is quite unlike the empirical willing in time which I know, why is it labelled Will at all? It seems a concept almost verbal in character, and quite useless to metaphysics. What were the driving interests of Schopenhauer in inventing it? An understanding of these will explain much.

Schopenhauer —and after.

He wanted a substitute for that metaphysics which, enthroning *Reason*, the Logical Idea, as "sovereign of the world," tried, on this basis, to come to terms insincerely with Christianity, the "absolute religion." He wanted, also, to undermine the excessive respect in which his contemporaries held conceptual thought. He favoured, accordingly, a World-Ground, from which Reason was ousted altogether, and he emphasised this expulsion by naming the residual psychical reality Will. This Ground, moreover, had to be denied consciousness. For that which is conscious *knows*, and its knowledge *may* be discussed by perverse philosophers as conceptual thought with its logical articulation and all! The Ground, therefore, is best treated as blind and unconscious.

But you cannot get out of this Ground a knowledge which it does not possess. And one trouble of the system is that the Will acts, when required, with a wisdom that excites surprise, as when *e.g.* it supplies the *a priori* frame for our perceptions or when, shaping the chicken in the egg, it performs a task "complicated, well-calculated and designed beyond expression." [1] This class of admission shows that the original hypothesis was faultily conceived. It leads, in fact, to the attempted emendation of Schopenhauer by his admirer von Hartmann, who once more calls in knowledge, under the name of the "Idea," to assist Will, and who asserts that the "idea of the world-process is the application of the Logical to empty volition," [2] unconscious, not conscious knowledge being supposed. "Empty volition" is a mere phrase, and the "application of the Logical" another, but this attempt to improve on Schopenhauer illustrates well how his exposition has been found to halt.

A further attempt to suppose a psychical World-Ground (not describable as "Reason") must deal adequately with the problems (1) of "consciousness," the most important in the whole range of philosophy, (2) of activity, and (3) of what von Hartmann and others have termed "the Idea." Schopenhauer would not credit the Will with an ideal aspect; there was a risk that some follower of Hegel would assert that *this* aspect, at least, of the Will is "logical." He countered the risk by banishing "the Idea" from his Ground. In doing so he emptied out the child with the bath.

[1] *The World as Will and Idea*, Haldane and Kemp's translation, ii. 473. *Cf.* also ii. 485 and i. 190.

[2] *Phil. of the Unconscious*, Coupland's translation, iii. 182.

8. Hegel and the Hypothesis of the Logical Idea or Reason

§ 5. The Hegelian system (acquaintance with which I presume [1]) is the exaltation of Reason, which is a name for the organised universe of thought, systematic according to an immanent *logic*. It is Panlogism, teaching that "the real is the rational and the rational is the real." [2] This exposition of the Ground as Reason is sometimes discussed as the metaphysics of the Concept or Notion. It is in virtue of a dialectic revealed in the "labour of the Notion" that thought is forced to progress toward that absolute knowledge which constitutes truth. Note how this attitude makes conceptual thought self-sufficient. There is no verification of results by confrontation of them with reality *beyond* thought. Thought is self-verifying. In philosophy to *prove* is to "show how the subject by and from itself makes itself what it is." Truth, to deserve the name, "must authenticate or verify its own truth, which verification . . . within the sphere of logic, is given when the notion demonstrates itself to be what is mediated by and with itself, and thus at the same time to be truly immediate" (Hegel). This attitude reasserts incidentally the old-world Aristotelian and Platonic view that the true nature of a thing is known and shown

Hegel and the cult of the Notion.

[1] "Acquaintance," not mastery. I cannot profess to be able to follow it through all its details. Much, for instance, of the Doctrines of "Essence" and "Notion" in the Logic seems to me sheer verbalism. But if my survey of the basic defects of the system is correct, this verbalism was inevitable.

[2] This teaching, however, wavers, as we shall see, before the facts of Nature and History.

only in its notion. If you ask how this account of truth applies, say, to a statement "The Turks are defending the Dardanelles" (which requires appeal to reality beyond the sphere of the concepts employed), you get this answer. The statement is merely correct. Or as Hegel puts it, "That a person is sick, or that some one has committed a theft, may certainly be correct. But the content is untrue. A sick body is not in harmony with the notion of body, and there is a want of congruity between theft and the notion of human conduct." [1] The only content which is strictly true is one not mediated [2] by something else, not limited by other things "or, otherwise expressed, it is one mediated by itself, where mediation and immediate reference to self coincide." [3] This requirement implies that only the closed whole of knowledge is absolutely true. God, *i.e.* conscious Reason, is Truth. God and the totality of the all-embracing Notion or Absolute Idea are synonymous.

A fundamental assumption.

In this cult of the Notion, we note the assumption that thought is the higher, the more it leaves sensible reality behind. Mathematics deals with abstractions of space and time. But even these abstractions, in which sense is "idealised," are far too gross for Hegel. Thought has to soar beyond the last abstraction of sense, "it renounces the field of the external and internal sense, and turns its

[1] Wallace's *Logic of Hegel*, "Doctrine of the Notion," p. 263.

[2] To mediate is "to take something as a beginning and to go onward to a second thing; so that the existence of this second thing depends on our having reached it from something else contradistinguished from it."

[3] *Ibid.*, p. 117.

back upon the interests and inclinations of the individual." It is this *super-rarefied Thought*, devoid of the least taint of sensible content, which constitutes the theme of the Logic and the eternal essence of God.

Birth of the Dialectic.

Now watch the birth of the famous dialectic, as Hegel employs it. At the outset of the Logic the Notion confronts us very "abstractly" in its moment of "Being." But a *dynamic* or principle of movement is wanted; otherwise the *supersensible* thought of "underived indeterminateness," "Being," would be a static, dead presence, incapable of alteration. What dynamic is available in so rare an atmosphere of thought? One and one only, to wit a conceptual or notional dialectic; an immanent dialectic which is the *movement of the Notion itself*. Well; we are familiar with this famous movement—each notion, in affirming itself, negates itself by passing into its opposite and closes again with this opposite as a more adequate and truthful affirmation of itself. And so on. Hegel displays a marvellous ingenuity in this experiment. He hits upon the only possible working "principle of movement" available for what I may call *nude concepts*. The principle seems, at first sight, to stir the dry bones of the "Logic" to life. And it promises, also, to reveal the entire Logical order, of which it is an aspect, as self-verifying and self-sufficient. Thought in philosophy differs from thought as concerned with the empirical sciences in that its contents are infinite and are brought before us under the *form of necessity*—for the dialectic has no room for alternatives; it works through contradictions and the overcoming of contradictions in one and only one way. Small wonder that the

possibility of thus grasping the thought-dynamic of a Universe was acclaimed enthusiastically by thousands of men! The World-Secret seemed open to all who had the power to read it.

Hegel's notions or concepts and the concepts of ordinary thinking.

It is impossible to understand Hegel, unless this belief in what I call the super-rarefied notion or nude concept is borne in mind. And it is important to observe that this concept (which "dwells in the very heart of things and makes them what they are") is not the "figurate" concept—the "materialised, solidified" concept, the "stagnant" idea yoked to a name—which men use in ordinary thinking. This figurate concept, which reduces the object to stationariness, to a "point of rest," is only that "snapshot" of the Becoming of which Bergson speaks. Contrasted with this makeshift is the indwelling Concept or Notion, which is not to be reached by analysis. This underlying reality is a dialectical *movement* of *pure* thought which philosophy alone, never mere psychology, can make clear. Those who have read Bergson on the "snapshot" (and have believed, quite erroneously, that they were confronting something new) must not suppose that his view of the concept settles Hegel! Hegel was quite alive to the existence of the "snapshot" concept and wrote about it freely long before Bergson's day. He treated it as an empirical makeshift. *He* is concerned with the indwelling *reason* of the "snapshotted" Becoming itself!

Hegel was fully aware of the functions of Bergson's "snapshot" concept.

Are there supersensible concepts?

Are there super-rarefied notions or nude concepts such as Hegel believed in—that is the question? Or is a nude concept of "Being," or "Causality," or "Essence," etc. etc., devoid of all sensible

content, merely a Command-Concept (Chap. II. § 4) which summons into reality that which it wants and feigns that its order has been carried out? This feigning serves all the purposes of discussion; but error may lie in believing too seriously that the realities evoked exist independently of their creator. Let us not lose sight of this possible solution as we proceed. On the other hand, let us not forget that, if there obtains *pure rational thought* (*i.e.* thought unalloyed with "sense"), Hegelianism and its dialectic are revealed as of enormous, nay of cosmic, importance.

§ 6. After this indispensable prelude, we shall seize the very soul of Hegelianism if we ask, further, what are the main philosophical influences contributory to the system.

On the Main Historical Influences contributory to Hegel's System

(1) There is the Greek tradition, already noticed, in favour of the view that the truth of a thing is known and shown in its notion. There is also the tradition of a psychical Absolute of all the perfections, taken from Aristotle. This Absolute is a *concept* synthesising all subordinate *concepts*, the Form of Forms, the *νόησις νοήσεως*. Note how, on the impulse given originally by the practice of Socrates and the speculation of Plato, a peculiar sort of glory is assigned to *conceptual* thought, *logically* co-ordinated. Conceptual thought is believed to be the light of sensible experience, which, at best, is only a distant and debased reflection of truth, broken into the multiplicity of space and

Conditionalism in Greece.

time. "Chance," again, counts for Aristotle—it re-occurs appropriately in Hegel's works as the "*contingency*" which infects the time-order of Nature and History; that "otherness" into which the timeless IDEA (the seat of *necessary* logical connexion) has fallen in the act of negating itself. This "Contingency" proves of great use in accounting for the manner in which things and events in Nature and History flout fixed logical classifications, the logical order of category-articulation, and, to a great extent, expectations of intelligent immanent purpose. The prestige of a *ratio mersa et confusa* has to be saved somehow, and here lies a hope. Reason has hurled itself into Contingency!

But, I repeat, we must remember that, when Hegel is articulating concepts or "moments of the Notion," he is never referring to the "snapshot" concepts, which you and I take *of* the Becoming, but to the indwelling souls of reality, to the concepts whose movement and expression are the Becoming itself. It is a *supersensible* and *self-developing* conceptual thought which he makes the Logical *prius* of reality.

The Greek cult of concepts centred, at any rate at first, round those of the "stagnant" sort. Unchanging concepts were contrasted with changing sensible phenomena, with things too unstable and transient to serve as objects of science, and were exalted accordingly. A review was held of these unchanging existents or super-existents; the need arose of relating them and, with this, the call for a logical order. When, later, the "concept of concepts," which comprises the logically ordered collec-

Genesis of the notional Absolute that is "above time."

tion, was treated as God, there was born belief in an Absolute of all the perfections, changeless, timeless or above time. The Ground of Hegel is similarly perfect and finished, a reality above time; the all-inclusive Concept or Notion, the rational or logical *Absolute Idea*. True, Hegel says somewhere that the universe is both accomplished and ever accomplishing itself, but the accomplished aspect overlaps the other, which concerns only Nature and finite sentients. The IDEA is the presupposition of time, and holds its wealth in a form in which time-succession is at once preserved and transcended.

Thus, Hegel's "moments of the Notion" (though they are said not to be stagnant concepts, but active powers, nay, the "souls of all reality") belong to an Absolute above time; and we can see how the original movement towards this Absolute began. It was prompted by the Greek veneration for conceptual thought.

The story of the categories.

(2) To understand more fully the Hegelian conceptualism, we must glance at the story of the "categories," as they arise in modern philosophy. "Kant's categories form really the substance of Hegel." [1] It is an amazing tale of initial error, with attempted rectifications which create new difficulties and lead finally to Logical Realism. Let me try to present the essence of this very difficult and obscure region of philosophy. We are to start from the situation created by the speculations of Hume.

Hume's rejection of the Ego-thing is welcome.

[1] Dr Hutchinson Stirling, *Secret of Hegel*, ii. 401.

But his reduction of experience to atomistic psychical states "involves him in difficulties. Thus to say that 'impressions' are separate is to dub them irrelative. He contends, withal, that it is from the '*manners*' of appearing of impressions that we draw our ideas of Space and Time. Alleged irrelative units are now being discussed as relative![1] Hume's treatment of what he calls 'natural' and 'philosophical' relations breaks down: his initial assumption renders his task too severe. He fails, as observed by Huxley, to grasp the elementary character of impressions of relation."[2] . . . Hume's breakdown.

". . . Kant seeks to amend Hume's thought. Hume had muddled the inquiry into relations. He had, also, left the frontier between 'subjective' and 'objective' ill defined. The Königsberg philosopher takes over uncritically the 'impressions,' *alleged* to be loose and manifold, and seeks to *relate* them. I pass over the obsolete Kantian 'unification' in Space and Time,[3] the minor 'unifying' syntheses of 'apprehension in perception,' etc., and reach the categories. These are 'judging' concepts—*a priori* conditions of experience, whose function is to *import* universality and necessity into Kant's failure to meet the difficulties raised.

[1] The "idea of extension is nothing but a copy of these coloured points and of the manner of their appearance." This view holds good against the theory which makes of space a mysterious frame containing "impressions." But it presupposes, of course, a relativity in which the impressions come. These "impressions," in short, are not "separate" at all.

[2] *Hume*, p. 69. What a pity it is that Kant, also, overlooked these "impressions of relation"!

[3] This crude theory leaves the detail of the *order* of sensible differences quite unprovided for! Why is this colour *here*, why does it rain *to-day*?

the impression-flux which had troubled, or rather amused, Hume. There is supposed a further unifying or 'thinking' of impressions (*i.e.* sensible data). And the objective, in this view, is definable as that which we *have* to think, or which is thought for us, independently of our caprice, by the Transcendental Judgment. A judgment of subjective worth, valid only for this or that person, is a judgment of perception. But a judgment of experience, which is given universally and necessarily, shows the work of pure Reason. There is a deduction or vindication of these categories. They are conditions of experience, forms of unity imposed on phenomena as presented in space and time. 'The category alone can never provide me with a concept of an object; for only by perception is the object given which is *afterwards thought* [italics mine] in accordance with the categories.' But were not the categories *a priori* and their application valid, there could be no experience. No categories, no common world of perception such as we *all must* confront. And here it is interesting to note how the Platonic contempt for the sensible persists. It would never do to place categories and mere sensible data on too democratic a footing! The category is quite too exalted to descend into the realm of sense—can never itself be perceptible in time and space. Still it has to 'get at' the sensible data somehow. What is to serve as the go-between? What but the pure form of time which at once is *a priori* and embraces all phenomena? The categories, accordingly, are schematised or bodied forth in tenuous 'time-determinations' by the productive imagination—that pre-empirical imagination which proves subsequently so useful to Fichte. Bodied forth

thus the categories can subsume, and make fully objective in a universal and necessary way, the sensible facts."

"The story of the categories merely opens with Kant. And if we consider the sequel, we shall observe two opposing tendencies. On the one hand, the list of categories is reduced, some writers declining to adopt more than one. There is noticeable a very wide rejection of the categories of 'Modality' and 'Quality,' and a strong disposition to dwell on the 'Relation' group, Causality being sometimes favoured along with complete neglect of the rest. The original twelve categories were extracted from proposition-forms which were taken uncritically from the old logic. (Kant, says Hegel, 'did not put himself to much trouble in discovering the categories.') Had categories been vindicated or 'deduced' strictly on the lines of 'No categories, no objective experience,' it would have been hard to make out even a respectable case for the twelve. On the other hand, we find the categories rescued from Kant's 'shallow' subjective idealism—the epithet is Hegel's—regarded as the rational 'souls of reality,' made more numerous, dialectically interconnected, and woven into a system of thought-determinations which is held to reveal the Absolute. This way, however, lies Logical Realism." [1] The categories after Kant.

The system of Kant belongs to the literature of power, not of knowledge. It is wrong on almost every positive issue which it decides. And it fails egregiously in the attempt to overwhelm Hume with

[1] *Individual and Reality*, pp. 181-5 (with a few alterations).

the categories. Subjoined are the main considerations which compel this judgment :—

Objections to Kant's doctrine of the categories.

(A) There is no manifold of loose "sensations" or "impressions" which require this "unifying" by space and time "forms" (themselves fictitious), syntheses of apprehension, etc., and categories. "Sensations" are abstractions created by analysis. The primary field of experience is a continuum in which sensible *aspects* merely stand out. (We shall see anon how this continuum comes to appear.)

(B) The categories "bring nothing to perception," as Schopenhauer points out. To cite my own work again. "We have seen that, according to Kant, there obtain 'judgments of perception' which are not subsumed under the categories, and are, therefore, not properly objective at all. The categories are not always applied. *And when they are applied,* their significance amounts merely to this: they import universality and necessity into the ready-made sensible phenomena which perception supplies. Given this *superimposed* necessity, objective experience is possible." [1] Now this does not answer Hume at all. Thus Hume in the *Inquiry* discusses the impact of billiard balls. Is the moving of a ball, when hit by another, a case of merely conjoined or necessarily connected phenomena ? Hume suggests that our *feeling* of necessary connexion arises only after frequent experience of like conjunctions. The phenomena themselves just happen, one after the other. Kant denies this. But his wretched category of Causality arrives on the scene too late. It cannot import into the phenomena a necessity which is not already there. The fundamental difficulty is why the phenomenon

[1] *Individual and Reality*, p. 186.

of one ball moving should be followed by the phenomenon of another moving when hit. This primary happening presents the vital problem. If there is no "necessity" *immanent* in the perception, no reply has been made to Hume.

A modern Hume might suggest that Kant's things-in-themselves supply sensations in a "non-necessary" way, in which case the category brings a spurious necessity to perception. (I waive the old objection to things-in-themselves, viz.—that to suppose them supplying anything is to make Causality valid beyond experience, whereas Kant asserts frequently that categories are only valid within experience. It is unanswerable, but that is Kant's affair, not ours.)

(C) The only vindication of the categories possible is along Kant's own lines.—"No such categories, no experience." Now, I venture to say, we can account for experience coming as it does without resort to the creaky and cumbrous machinery invented by the Königsberg sage. Categories are not wanted.

It has been suggested, I am aware, that Kant is not describing the birth of experience, but is only attempting an analysis of its aspects. There have been attempts even to Hegelise the interpretation of Kant. But distortions of this kind will not survive a frank survey of the system.[1] The fundamental note is that of Lockeian things-in-themselves which (somehow) generate sensations in a "subject"; these discrete sensations being "unified" by treat-

Kant's fundamental error which created a call for the categories.

[1] Hegel, at any rate, would not have it that Kant's "shallow" subjective attitude anticipated his own!

ments of different sorts, on which they show virtues originally absent from them. The manner in which the "pure" and supersensible categories have to be "schematised," before meeting the lowly sensations, is illuminative. All this elaborate experience-theory grounds on a mistake. The belief in a "given" manifold of discrete sensations (on which chaotic plurality unity has to be imposed) is the initial step which leads to the abyss.

It is worth remark that Berkeley had already distanced Kant, as regards the adoption of a plausible idealism unspoilt by resort to the fiction of things-in-themselves, while in the *Siris* he actually finds the soul of things in *universal relations of Reason* which are *immanent* even in perception. This points the way. But Kant, also, had thrown out occasional suggestions tending to better the hypothesis of the categories, and even to further discussion of them in the manners favoured by his successors. Thus, touching the number and interconnexions of the categories, he alludes in the *Critique* to other categories not tabulated, to a great number of *equally pure* derivatives which cannot be ignored by a complete transcendental philosophy, *i.e.* a philosophy concerned with the conditions of experience. He notes the passage of the first and second categories, mentioned under each of the four heads,[1] into the third (*e.g.* "Reality" and "Negation" pass into "Limitation"). And he moots the possibility of a common root for sensibility and understanding—a "perceptive understanding" providing its own manifold, catering both for the space and time-phenomena and the

Foregleams of the post-Kantian treatment of the categories.

[1] Quality, Quantity, Relation, and Modality.

"unifying" categories,—a suggestion which promises a notable advance. He has urged, too, that "*a pure use of the categories is, indeed, possible,* or not contradictory, but has no objective validity because it concerns no perception on which it confers the unity of an object, for the category is only a pure function of thought, by which no object can be given me, but by which only what is given in perception is thought." This passage suggests what the Hegelian articulation of categories realises in logic. Hegel, however, disputes Kant's view that categories taken by themselves are "empty"; he holds that they have a content in the "special stamp and significance they possess." He must. If they have no content, it is impossible to understand how they can be discussed in their "purity" at all. One must focus attention on something!

And now note the move forward. Fichte gets rid of the fiction of "things-in-themselves" which feed sentients with sensations. He next proceeds to make use of Kant's "unity of apperception," which he converts into the Absolute Ego and makes the basis of a thoroughgoing idealism. The categories, which are a batch of *underived* "judging concepts" in Kant's *Critique*, are now all derived and interconnected. They are born from the self-affirmation of itself by the Absolute Ego and, when so derived, appear as the *universal rational souls of reality in general.* Hegel, again, does not derive them from self-affirmation by a ready-made Absolute, but, opening his inquiry at the barest of notions (Being), regards them as *constituting*, dialectically through Nature and Mind, the ABSOLUTE. In indi-

The categories as transmuted by Fichte and Hegel.

cating the passage of one category into another in the dialectic, in exhibiting them as the living spirit of Nature and Mind, in greatly augmenting their number so that they cover all the domains of experience instead of mere perception, in equipping *pure* thought with a synthetic as well as an analytic power, finally in identifying logic with ontology, Hegel, as so many have held, lifts Kant from the Styx into Olympus, from the gropings of agnostic subjectivism into the very heart of reality. For Hegel the mere "judgment-forms" of Kant have become the very basis and superstructure of "solid fact," whether in Nature or in finite sentients. They permeate, too, as universal thought-determinations, the flow of history. Thus the course of philosophers' thinking, if we ignore its contingent or "chance" features, illustrates the dialectic of the categories, from pure Being as pondered over by the Ionic thinkers of Greece, through the long series of intermediate categories, down to the category of categories, the Absolute Idea, as voiced by Hegel. All this is a magnificent experiment, splendidly devised and wonderfully carried out. It fails because even the giant intellect of Hegel cannot cope with the situation created by the original mistake of Kant. There was no need to invent the hypothesis of supersensible categories at all. And *once taken out of the system of Kant* (who fed his "empty" categories with the content for which they craved), the hypothesis leads straight to Logical Realism. The *content* required for the categories can only be provided by a *tour de force*. The so-called "alogical" or "blind" elements of reality, sensible multiplicity, can no longer be drawn from things-in-themselves. They have,

Logical Realism inevitable.

somehow, to be *extruded from the categories*, which are made to underlie even sensible particularity and difference. Kant's category-doctrine, you say, has been pushed too far. Perchance. But you *have* to go beyond Kant, and, when you do, you find that the collapse of the category-hypothesis has, at best, only been deferred.

(3) *Dialectic.* Dialectic meant originally, it would seem, the art of acquiring knowledge in conversation by way of question and answer. Talking used to be much more important than reading. It came, however, by stages, to mean philosophy, in the strict sense, as Plato and others regarded it, viz. the knowledge of the eternal, self-identical, and immutable, which is and never becomes. But essential, it was urged, to this knowledge is the *process* by which the "many" are reduced to the "one" and the "one" can be shown as manifested in the "many." It is this one of various meanings, I take it, which is in view when we are discussing what is called the "dialectic" of Hegel.[1]

The meaning of dialectic.

The dialectic, as we saw, lives through contradiction which mediates ever higher truth. Observe, however, that this dialectic is no mere method of philosophers talking or writing; hunting for antitheses (oppositions) and their resolution; inventing an analytic-synthetic procedure by which men can reflect upon things in the study. Dialectic is a *Universal Dynamic* and shows only incidentally in the thought of a finite being. Even the physical

Dialectic is a "universal and irresistible power."

[1] Benedetto Croce has proclaimed once more that Hegel's principle of the solution of oppositions is one of the great triumphs of philosophy. It is necessary to discuss it at length.

elements are said to be dialectical; a fall of rain, for instance, is an illustration of dialectic as it shows in Nature. All natural processes, in fact, are dialectical. And, on the cosmic scale, the Absolute Idea itself is the resolution of the antitheses of Nature and Mind. The Idea is articulated as abstract, self-identical unity, negation of this by a plural "other" of particularity and differences, and as concrete identity-in-differences and unity-in-plurality, wherein it affirms itself with a richer content. Thus the *notional* Thought-Universe, also, has its dialectic, which we, of course, do not make, but merely reproduce or echo in our thinking. The overcoming of the antithesis is the resurrection of the Idea, the wealthier for all the distinctions harmonised and included within itself. The "result" in question, however, must not be expressed amiss. It does not occur at the end of a time-process. "Moments" severed for us are together for the Absolute Idea, the conscious Reason, the Notion which knows all as itself. The tail of the serpent is in the serpent's mouth. This self-sundering of the Idea is the Hegelian form of the mystic Jacob Böhme's view that "without self-diremption" the being of the Eternal would be non-being. Conscious knowledge, it is urged, implies antithesis within the Spiritual Ground.

How is the dialectic related to pure thought?

We saw that, in a live *notional* Universe, this dialectic is imperative. There is required more than stagnant notions embraced by an inert supreme Notion. A dynamic is wanted which forces any aspect of the Whole *out of itself* by a necessity immanent in its own being. This is provided in the *self-propulsion* of a notion whose "immanent

negativity" implies development by contradiction—by passage of itself into its "other" and return upon itself enriched. The dialectical method as revealed in the logic *is* this manner of self-propulsion of pure thought. This march is to be grasped by Hegel, *as one immersed in the life of Reason itself.* Fichte, also, had made use of a triplicity of Thesis, Antithesis and Synthesis when deriving the categories, but somewhat as a dreamer of dreams, whose idealism (despite appeal to an "Absolute Ego") was too subjective still. He started from a first principle, the self-affirmation of itself by the Absolute Ego, which did not alter as the syntheses proceeded. Schelling, also, had treated of a triply-articulated rhythmical movement in his scheme of the "potences," but in the manner of a spectator watching an abstract Absolute, itself a barren "indifference" (*i.e.* neither the one nor the other) of Nature and Mind. These latter are not, as Schelling deemed, on an equal footing—Mind is the "truth" of Nature, which it embraces and transcends. And the Absolute is not to be seized, as is Schelling's Indifference-Absolute, by an "intuition," but is to be regarded in a sense as result.[1] It is not an indeterminate Substance, but Spirit which, again, is the Idea returning to itself, in the negating of Nature, as the Absolute Idea. Observe that no opposite is suppressed in the reconciling of the Idea and Nature and of minor contradictory pairs. Both opposites subsist modified, at once abolished and preserved, in the higher notion. The Idea and Nature are alike aspects or "moments," *different but no longer exclusive,* of the Absolute Idea.

[1] "In a sense." Not as the end of a time-process.

The System

§ 7. We have now indicated the main historical influences which conspired to the prompting of Hegel—the Greek cult of the notion or concept, and the Greek belief in the timeless Absolute, also notional, of all the perfections; the rise of the peculiar "judging concept" or category with Kant, and the dialectic of oppositions or contradictions, also not ignored by the Greeks and by Kant, but far more significantly treated by Fichte and Schelling. The idealism itself is objective. Nature is independent of this or that finite sentient. It is not even, as with Fichte, an appearance within an "Absolute Ego" (common to all finite sentients) which remains fixedly what it is, while contemplating its work. This is still subjective idealism. The Hegelian Idea passes into Nature, its "otherness," and Nature, even in the Absolute Idea, remains a "moment" suspended in, though subordinated to, the Idea. More accurately, perhaps, we ought to say that the Idea is not wholly sunk in Nature. In Hegel's exposition the Idea maintains itself, also, in the background and is the source, apparently, of what folk would now call "Evolution" in the most general sense of that term.

Objective Idealism.

Nature, says Hegel, is due "to the statuting" of the Idea. In logic he discusses God in His eternal character, *i.e.* as revealed in the basic supersensible categories or thought-determinations. But logic is a realm of shades. Hegel begins with the most abstract of categories, Being, and proceeds painfully through the dialectic of Being and Essence to the close of the dialectic of the Notion,

How Hegel explains Nature.

when thought *returns on to the first category, Being, enriched.* The supersensible thought-whole which has Being *is* Nature! This is the ingenious stroke which explains Nature. It is thus that the notional dialectical whole surveyed in logic *negates its abstractness.* As Hegel puts it, the regions covered by the terms Nature and Mind can be treated as "applied logic." Our task, then, is to detect the logical forms in the guises which they assume in Nature and Mind; these guises constituting "a particular mode of expression for the forms of pure thought." Thus is Nature the veritable Odyssey of Spirit; the Reason-posited medium of Reason's own dialectically-attained self-revelation.

Logical Realism enthroned.

Thus the Logical Realism, which Kant dreaded when he bade us not make too much of "empty" forms, is enthroned. But this result was inevitable. The category doctrine could not be left as Kant first outlined it in dealing with perception. And, expanded so as to cover all spheres of reality and forced to provide its own sensible or empirical content, it brings us to this. The *Logical* Idea "by its own native action is specialised and developed to Nature and Mind" and owes nothing to foreign appulse or things-in-themselves. Those who look forth on Nature and, anon, at the immense complexity of experience embraced in the "philosophy of Mind" (which covers the whole story of sentient beings) may well hesitate. There is far too little, even in a cosmic "logic," to flower into the variety we know.

Enough now has been said of this system, in so

far as it concerns us. Hegel is the champion of those who believe that the Ground of phenomena is conscious REASON. He puts the case as no one else, we may assume, can put it. It remains only to append some further criticisms which I am arranging, in the main, in an order dictated by the preceding account.

THE CULT OF THE NOTION OR CONCEPT OR LOGICAL IDEA

The cult of the Notion criticised.

§ 8. Is Hegel, to borrow a phrase from Plato's *Sophist*, "a friend of forms"? The Notion, he assures us, is not an abstract general concept such as "understanding" frames, but the "principle of all life" possessing in every part "a character of concreteness."[1] The Notion is not, by definition, a stagnant one, Bergson's "snapshot" or figurate concept. And it shuns the critic by *escaping from all observation*. It "is not palpable to the touch, and when we are engaged with it, we must be dead to hearing and seeing."[2] Its supersensible character, when "pure," is said to be an *excellence*. We note here a bequest from Greek concept-worship, which belittled the sensible. There is a passage in the *Republic* in which Socrates says that the visible motions of the stars fall far short of the beauty of "intelligible" motions involving "real swiftness and real slowness"—these latter mere conceptual figments of the Command type (Chap. II. § 4). This way lies folly. But to return to Hegel's scorn for sense—are we, in sooth, dealing with a topic of

[1] Wallace, *Logic of Hegel*, "Doctrine of the Notion," p. 247.
[2] *Ibid.*, p. 248.

superlative "excellence" when we discuss "pure" Causality in his logic, instead of thinking of it *in view of actual causal relations in a sensible situation* such as a game of billiards? Or is the reverence for the "pure" notion merely a superstition, which persists for some men, mainly because they are slaves of words?

Hegel regards a notion as "abstract" when severed from its connexions with the *other notions* which it implicates. Our view is that no connecting-up of it with mere notions can remove the "abstractness." A notion is a *substitute-fact* for that which experience, for one cause or another, cannot present to us directly. Entertained quite aloof from sensible data it becomes so "pure" as to be *verbal*.

A notion as substitute-fact.

This substitute-fact can be used in a lot of novel construction and, as thus used, seems to develop new reality. But, in truth, it is sterile apart from our manipulation of it. The concept no more contains "implicitly" all that which dialectic is said to draw from it than a Queen at chess holds "potentially" the hundreds of moves which I can plan with her during my life.

A psychological reason why some men incline to believe in supersensible notions or concepts is because they use words largely in an algebraic way without much concern—till verifications are imminent—for images. This kind of thing is justified because, by observing certain rules for the game of verbal symbols, we can, to a limited extent, make it *work*. Vast blocks of our "knowledge" consist of words

Why men tend to believe in supersensible notions.

which serve as guides to action without carrying much meaning of their own. The procedure, however, has its risks, and in practice these are continually being realised.

Origin of the notion or concept of "Being."

I am forced to reject the alleged supersensible "Being" with which the dialectic starts, having no awareness whatever of this notion as freed from all sensible taint! I agree with Mill that the meaning of "Being" carries us back to experience —not, indeed, to the "states of consciousness" which he mentions, but rather to the *sensible content* which consciousness lights. "Being" is alogical. It descends from no supersensible noetic heaven, but is *felt* whenever sounds, colours, stones, etc., are felt. The concept "Being" means anything noticed or noticeable which strikes attention as colours or stones strike it. Having made it first "mean" things, like stones or trees, I can, and often do, later extend its use to indicate qualities, quantities, and relations, also sentient centres like myself. And so on. Further, I can use it as a Command-Concept (Chap. II. § 4) to mean "underived indeterminateness," as with Hegel. But I do not confront in fact a "pure" notion.

Did Hegel deal with pure notions?

"Being," "non-Being," "Becoming," "Existence," "Essence and Appearance," "Causality," etc. etc., as discussed in Hegel's logic are, I must submit, mere words, unless, along with the use of these words, there goes a frequent glancing at sensible experiences, or aspects of sensible experiences. Meanwhile be quite sure that Hegel himself is taking surreptitious peeps at "sense" from time to time. Read the "Doctrines of Being"

and "Essence" of the logic and ask yourself whether dialectic there is not standing considerably on what sensible reality has supplied. Remember, too, that Hegel demurs to Kant's statement that categories are "empty." They have, he says, a content in the "special stamp and significance" they possess. The pure notions have different characters. Is it not, at least, possible that these differences are echoes of sensible differences which have melted into the concepts ?

Why radical empiricism rejects "Being."

Radical empiricism, in fine, ought to reject an alleged supersensible like "Being." *It has no experience of it.* If the Hegelian retorts acidly, "The notion is out of *your* reach, but it and the other pure notions dialectically educed from it may be proved by a process self-sufficient and *self-verifying*," what am I to say ? Has the Hegelian a privileged insight comparable with that whereby Schelling "intuited" his Absolute ? And if so, may not the special endowment lead its possessor astray as it did, on Hegelian testimony, Schelling ?

But later I am returning to the dialectic (which was to vindicate pure notions), with intent to point out the respects in which it, also, lies open to criticism.

The Timeless Absolute, the Notion, the Absolute Idea, the Logical Ground

§ 9. Closely associated with the cult of the pure notions is the way in which these notions are said to melt into one another—logical dialectic. The

Whole of notions is, accordingly, *logical*, and Nature and Mind are merely its disguises or applications ("applied logic," says Hegel). And as a pure notion is above time, so the Whole of notions, also, is above time. This is the genesis of the timeless Absolute which came from ancient Greek thought and is reproduced, in a superior context, by Hegel. What a situation is created for those who face the abominations of the actual world! This Absolute of the perfections has to embrace anything and everything—from the Great War, the squalor and miseries of human life, down to the tortures of a vivisected rabbit—within its timeless reality. Thus far philosophers. But the mere layman feels that some monstrous mistake has been made: that Absolutes of this order, which characterise not only Western, but ancient Indian thought, are among the nightmares of human imagining. And this we shall certainly find to be the case.

Hegel's Absolute unsatisfactory.

A nightmare of imagining.

The object of philosophy, says Hegel, is the Idea. There is a magnificent outlook here. Nothing less than the Idea ought to be the subject of the thinker, whose interest outsoars anything else that life can offer—conventional religion being a poor thing and a narrow beside the sublime prospect opening up before him. "Finite ends" and aims show stale to the man intoxicated with the mystery of the Idea. Agreed. But the Idea must not be regarded, in the Hegelian way, as *notional, i.e.* as analogous in character to that which is created when we conceive. There is a deeper, and more inclusive, hypothesis available. Turn again to Nature and sentient life in its thousands of aspects, and, perhaps, you will find it. "Logic" is, perhaps, *our* dodge, facilitating the

A logical-notional Idea is too sterile.

processes which we call reason*ing*, while possessing a limited theoretical interest, in so far as it analyses them. But, however you trace its frontiers, logic remains, what Hegel, indeed, once called it, a "realm of shades." And this "realm of shades" cannot be conjured with so as to yield an "applied logic" in the shape of Nature and sentient experience. It is the trouble of Materialism imported into Idealism—the Ground of phenomena has been made *too simple, too thin, too empty of content, for the Nature and sentient life in which it is said to manifest.* By what miracle is logic "applied" so as to blossom forth into the particularity, colour, and life of the world? How am I to extract the glory of the Matterhorn and the sorrows of Werther, or even to "deduce" Krug's pen, from the cold sterility of the Notion?

This form of Idealism is false. It is simply inadequate to its object—the Universe. One could prefer even the saying of Ravaisson, "Le monde entier est l'œuvre d'une beauté absolue, qui n'est la cause des choses que par l'amour qu'elle met en elles"—supposing a Ground in which a richer content obtains. One difficulty, however, would be to understand the full character of the content intended. Another to account for the abominations of life as "applied" Beauty.

Our solution has been suggested already. All this criticism merely serves to clear the way for a fuller statement of it. What is hypothesis? An *imaginal* creation? What is our imaginal creation to stand for in our minds? For imagination as the secret of the Universe—the only power sufficiently concrete, plastic, and creative to blossom

The Idea as imaginal!

into the wonder and horror of Nature and sentient life. Imagination, let us recall, is Hume's "*magical faculty*," which no mere psychology could explain. This, perchance, is the great Magician Whose thought holds the romance of the infinite. And in one of the petty worlds which He has called into being, it is still imagination, in the form of hypothesis, which has to simulate and suppose the Great Power of which it is a ray. It would be remarkable if our thought could be found to close with its object in a manner so intimate as this view suggests.

Note, finally, that the Hegelian God, conscious Reason, ought not to be palmed off on the plain man and humble worshipper as a priceless tenet of "absolute religion." This swindle cannot be condemned too severely. If you desire to test the matter, take the Lord's Prayer and substitute for the words "our Father" "Absolute Idea." Remember that this Absolute manifests as your father (and mother), but also as your mortal enemy; that, sunk into its "otherness" as Nature, it is displayed in every detail around you which is squalid and vile. Its logic, "applied," gives rise to the foul as well as the fair. It has to include everything, and it is nothing in particular, so that it is quite futile to specialise its character to suit your passing needs. Futile, also, to pray—

Uselessness of the Absolute to the worshipper.

> "May God Almighty grant His aid
> To Keswick and its woollen trade!"

—these small matters belong to the time-order, and the Absolute is enthroned in a majesty above time.

We shall ask, shortly, whether Ultimate Reality can be said to be above time. Possibly "timelessness" itself is on the list of conceptual fictions.

Is "timelessness" a conceptual fiction?

§ 10. *The Categories.* Negative or destructive criticism of these has done its work. It remains to solve later the riddle with which they were intended to cope.

It will be remembered that Huxley struck an important note in his work on Hume [1] when emphasising the "*impressions of relation*" which Hume overlooked. Kant was the victim of Hume's oversight. He sought to "unify" sensations with categories which are *supersensible*—whence all these tears, and, at last, Panlogism! There remains the hypothesis that "terms" and "relations" are no more than distinctions within a reality of intuitible content—the reality of an imaginal Universe. We shall return to this topic.

The original mistake about the categories.

The prejudice against the sensible was an idol of the tribe of Greek sages and university-philosophers who desired to rise by way of conceptual thought to an eminence above the plain man; expressing in this way their devotion to truth. Nobody now, outside very limited circles, derides the sensible. Nowadays you will find even university-philosophers hastening in their holidays to throw aside their books and rush into Switzerland and Norway to enjoy Nature which, were it not sensible, would possess no standing at all.

§ 11. *Nature and sentient Life.* It was said by

[1] *Hume*, p. 69.

Logic as "applied" in Nature and sentient life.

Hegel that the thought-development in logic does not need verification by experience external to it: it is *self-verifying*. But in the cases of Nature and sentient life we have to attempt a lot of verification quite outside the field of logic. For Hegel has committed himself to the view that these spheres are "applied logic." Consequently we can look at actual Nature and History and see how the alleged application has worked. You say that the "logical forms" reappear here in various "guises." Good. But obviously this kind of hypothesis can be tested by workaday experience.

"Contingency" covers many surprises!

Hegel, however, has already scented danger, and prepares us for disillusionment by mention of "contingency." The Idea abrogates its strict logical necessity in Nature. Nature, accordingly, is impotent to keep the moments of the Notion connected. It flouts clean and fixed logical classifications, sets the ideal of "intelligibly articulated" arrangements at nought. Even Hegel's great Scottish champion, Dr Hutchinson Stirling, concedes that "only partially and interruptedly" can the category-chain be shown to "underlie the phenomenal contingency, whether of Nature or History." Hegel was not happy with Nature-philosophy, leaving too much unexplained, and, as Erdmann decides, "impatience at the fact that so much is unknown makes him free with the charge that Nature is too weak to exhibit reason everywhere, that much is accidental, and wholly without meaning." [1] These are sympathetic authorities, whose testimony may be more welcome than mine. What, then, are we to think? Nature and History seem

[1] *History of Modern Philosophy*, Eng. trans., p. 689.

in revolt against the logic of the Notion. How does this square with the saying that "the real is the rational and the rational is the real" which we cited in commencing our criticism of Hegel? Where is the verification by experience, here at least compulsory, of the statement that Nature and sentient life are "applied logic"?

Well may we be surprised that the Logical Idea, inadequate in other respects to the Universe, has to provide the alogical or anti-logical phases of it! Hegel has urged in one place that the Idea "brings to its consciousness *what it is in itself*." Surely this eruption of the alogical and anti-logical is not from the heart of the pure Notion? But if not, from what mysterious bourne has it flashed into being? Again, hundreds of thousands of *insane* persons burden this planet. Is this part of the way in which the Logical Idea brings to its consciousness what it "implicitly" owns? There seems a little difficulty to be countered. And, assuredly, to mumble "contingency" is not the manner to counter it.

Strange "applied" logic.

§ 12. *The Dialectic.* The dialectic resembles a magnificent-looking motor-car, with a bonnet from under which the engine has been removed—*it won't start.* Hegel's claim is that "Being is the first mere thought; that whatever else you begin with (with the I=I, with the absolute indifference, or with God Himself), you begin with a figure of materialised conception, not a product of thought; and that, so far as its hold of thought is concerned, such beginning is merely Being." Thus a pure supersensible thought is to be the starting-point. From

The dialectic won't start!

this "first definition" of the Absolute Idea there is a dialectical passage to the "second definition," Nothing; Being returning on itself enriched with distinction, present yet subordinated, as Becoming, the first *truthful* category of thought, the first "concrete" thought, and therefore the *first notion, strictly so-called*. For the starting-point is an "original underived indeterminateness" with no assignable content at all. It contains no "moments" which it includes and transcends. The dialectic thus started goes on (not without liberal side-glances at sensible fact) till the Notion of notions is reached.

"Being" is not pure.

Now if "Being" were a thought of mere indeterminateness, devoid of any sensible content, the transition into Nothing would be simple. But this is just what it is not. It is a thought of sensible existence from which particularity has vanished owing to the blurring of memories of innumerable contents.[1] Or, rather, it may be this, because I find that, in my own case, I cannot use the term with any value to thinking, unless I add to my stock of "content" by glancing momentarily at present objects or the continuum in which such objects lie.[2] "Being" always includes sensible content, blurred or definite. And hence it cannot be equated with Nothing (unless you mean by Nothing what I mean in practical life when I say "there 's nothing in the cupboard," viz. nothing I want, but *something* else). Being and non-Being

You cannot equate "Being" and "non-Being."

[1] *Vide supra*, § 8.

[2] And when I use "Being" to mean, as it often does, a conscious sentient, I have to become momentarily conscious of my own sentient activity before I can be safe from verbalism.

are *not* the same, because one thought implies sensible content and the other, by definition, the absence of it. Thus the dialectical motor-car refuses to start, and there remains no option to the owner but to push it.

"Nothing or non-Being," sheer and simple, is a *Command-Concept* (Chap. II. § 4). It is rendered possible by the experience I have of expecting, *e.g.*, to see a patch of green and seeing yellow instead. I call this being aware of green not being there. I cannot be aware directly of sheer non-Being any more than I can be conscious directly of being unconscious. The Command-Concept orders that existents, not only of one sort, but of all sorts, shall vanish and feigns that this order has been carried out. This suffices for the purposes of discussion, but, of course, the order never is, and cannot be, carried out.

"Nothing" or "non-Being" is a Command-Concept.

Dialectic in Logic

§ 13. Does a "logical" process ever start and continue in the absence of a person with a motive for conducting it? Not in our experience. Radical empiricism, which insists on verification, knows nothing of the bald logical. It knows only of individual reasoners and the drive of interest.

Logical process concerns only individual reasoners with interests.

Dialectic in Nature

§ 14. There is no call, then, to concern ourselves, further, with the kind of dialectic which pervades Hegel's logic. It cannot start itself. Forced to start, it can be pushed *by us*, but only if we indulge in frequent side-glances at despised sensible pheno-

mena. There is no *inquiétude poussante* in a bare notion, which has no sensible content and is not being used by a man who wants a result.

Dialectic was favoured by Hegel as a *compelling* power, of an intellectual sort, at home in the rare atmosphere of logic. But he also discovers it, he thinks, everywhere in Nature. It is a "universal and irresistible" power—a dynamic that "lies at the root of" every natural process and, "as it were, *forces Nature out of itself.*" "Wherever there is anything carried into effect in the actual world"—there we have this dynamic. The limitations of a finite existent do not all come from without. It carries within itself the seed of its *alter*ation; of its passage into its opposite. In virtue of its own self-sundering into contradictory "moments," it is forced on to the path of change.

Objective dialectic.

The belief is that "the finite, as being *implicitly other* than what it is, is forced to surrender its own immediate or natural being and to turn suddenly into its opposite," and the Mesopotamian word "implicitly" [1] *suggests vaguely that the pressure is notional.* One instance of objective dialectic is cited from astronomy. "At this moment the planet stands in this spot, but *implicitly* it is the possibility of being in another spot; and that possibility of being otherwise the planet brings into existence by moving." [2] In such guises does the logical triplicity descend into Nature!

We shall see later that, so far from being "im-

[1] That "blessed word" Mesopotamia!

[2] *Logic of Hegel*, Wallace, p. 128.

plicitly other" than what it is, a finite existent is inherently *self-conserving* and tends to be static. And we shall be able to suggest, further, on what basis this self-conservation rests. But that discussion belongs to another place. For the moment I will submit the answer to Hegel which was made in my last work. Let us consider a chemical change, say, of H and O to form water; the supposal being that these symbols stand for relatively independent *psychical existents in Nature*:—

Finite existents, taken by themselves, are static or self-conserving.

"What obtains primarily in Nature is the rule of Might—of the alogical which thrusts content on content, and so forces this 'out of itself.' But we have seen, further, that there is [1] a notable *triplicity* in this act. There is (A) the invading or encroaching content; (B) the content invaded; and (C) the final content issuing from their strife. . . . You desire . . . to think the situation in a dialectical way. This being so, you will call (A) the affirmation, (B) the negation, and (C) the affirmation in which the negation is abolished while preserved. And you will urge that this dialectic is rational, containing its principle of movement, which is logical, within itself; (A) *passing into* its opposite (B), and being *implicitly* its return into itself enriched as (C). But the falsity of this dialectic leaps to the eye. There is no immanent process whereby (A) passes into (B); and (C), again, is not (A) back in itself. You have *united* the 'moments' dialectically, but you have not shown how they were produced. For (B) does not flow out of (A), but is 'posited,' as it were, in its own right. (C), again,

Natural process not dialectical.

[1] Better "may be." A multiplicity of complex relations must be normal.

is the result of struggle, and cannot be said, therefore, to have been implicit in (A). Rationalism lays claim (after the event!) to 'moments' which the alogical supplies." [1]

Dialectic in the Hegelian Philosophy of Mind

§ 15. Dialectic as this "indwelling tendency outwards and beyond" ought to figure everywhere in the sphere wherein Nature passes from unconscious into conscious life; through animal or plant sentiency up to the heights of art, religion, and philosophy. (Hegel almost loses sight of individuals in discussing the universal rational pulses of the Notion.) But we have seen that neither Nature nor History verify the alleged order of the categories or moments of the Notion. Even in the realm of philosophy there are inexplicable gaps and interruptions. And it is only by considering the European philosophical development and ignoring that of the East that even this imperfect case for dialectical achievement can be made out.

The logical order of the categories flouted.

You cannot understand the succession of stages of thought in processes *called* dialectical, unless you make appeal to what some would call "irrelevant" psychology. Bare dialectic would have no driving power. *Contradictions* dwell together amicably in millions of minds, as the history of theology and so much else shows us. If they cause mental unrest, it is usual to put wadding between them and so convert them into *differences* which are entertained

Psychological matter must be introduced.

[1] *Individual and Reality*, pp. 142–3.

apart. Even thought tinged with emotion will not always ensure movement; "Reason" marks time, but for *outside influences*, in China and India.

There is no dialectic in human thought in the sense that universal world-notions split into opposites, transcend these, split again of their own inward initiative, and so on. The thinking takes place in individuals who think in like ways and so combine to produce world-historic movements. The "contingency," invoked by Hegel, merely illustrates the fact that *individuals*, who are open to a thousand varying influences of time and place, sustain the thought-process. There is an inevitable turmoil and muddle of thoughts; and if you want to establish a "norm" of thought-development in the interests of Hegel's philosophy, you can only do so by selecting certain of the thinkers and tabooing the rest. Those whom you select are carriers of the logical notion—the others are quarantined in "contingency." Why "contingency" prevails.

I will now give some illustrations of thought-transitions, great and small, with an eye to the psychology involved. And first—

(A) The transition (which may happen to an Individual at any time) from a mechanical to an idealistic view of the Universe. I begin, say, by thinking that the Universe is a system of mechanical units, having their positions at any instant of time rigorously sequent on their positions at the foregoing instant of time. I cast away this hypothesis for Idealism? Why? Not because the aspects of reality (extension, resistance, time) contemplated turn, *of themselves and of their own initiative*, into Examples of thought-transitions which compel resort to psychology.

something else. The pressure is not that of an "indwelling tendency outwards and beyond" which the Hegelian hypothesis requires. It comes from another source. The meagre aspects of reality, which I note as a materialist, belong to a much richer whole of Nature and sentient life which experience presents. At first I attend chiefly to the meagre aspects which serve my ends, mathematical or other. Then a vague disquiet arises, an *inquiétude poussante*—I get bored with always attending to these meagre aspects, while the great residual mass of aspects is being more or less ignored. And at the prompting of *new motives* I attend more, or mainly, to the residual aspects. I end by changing my belief. Psychological pressure has brought me to notice more of reality than I did at first.

Dialectic not indicated.

(B) Or take the alleged "movement of the Notion" from Spinoza to Leibnitz. Hegel would say that the logical "moment," represented by Spinoza, develops a contradiction, which compels an advance. But there is another, and a more accurate, way of describing the transition. Spinoza conceives God as Substance, the unity of the "attributes" of Thought and Extension (and, perhaps, of others unknown to us). This Substance is to be the *only real existence*: in securing this reality every negation, every appearance which is *not it*, has to be excluded from it. But that which has been excluded must surely exist *somehow by itself*, and that which has been ignored will surely be *noticed* by some one less interested in "unity" than was Spinoza. The appearances thus excluded are noticed and rethought as a plurality of Substances by Leibnitz. Now you can regard this tran-

sition as a notion negating or contradicting itself. But the vital fact is that Spinoza was *interested*, for some end, in "unity" and attended to reality only in so far as it promised to subserve his interest. But the aspects ignored were always in view and could be "cut," so to speak, only by a trick. And if, on the lines of the "clear and distinct idea," one grand Substance, *i.e.* God, could be recognised, surely an infinity of other Substances could be recognised as well. Anyhow, the notion or aspect of "unity," on which Spinoza insists, does not *of itself and of its own initiative* pass over into the attitude of pluralism. Pluralism is stated by an individual, bored with the talk of "unity" (which is *felt* vaguely to eclipse too much), who looks forth anew to see how the Universe can supplement this talking.

Hegel mentions cases in Law, Politics, and Ethics of transitions of excessive states and actions into their opposites. But in these cases it is not an unattached reality which transmutes itself; there are always interested individuals at work. Thus he says that in political life extreme anarchy and extreme despotism naturally lead to one another. But anarchy cannot pass out of itself, unless there is a discontented individual of the required *character* at hand, nor need an outrageous despot live in fear, if he rules over sheep. An adage which he cites is "Too much wit out-wits itself," to which there is the retort that, in this event, the excess wit must be of very poor quality, as the individuals, who are affected by it, find out.

(C) What is the position of dialectic in the case

What is the relation of dialectic to competing hypotheses?

of three or more competing hypotheses, the imaginal experiments by which science and metaphysics, also, have to move. Take, for instance, four hypotheses as to the factors of organic evolution—those of Weismann, Eimer, Lamarck, and a believer in the Old Testament god. There is no triplicity here, and one or more of the hypotheses may be entirely unrepresented in the final truth when it comes to light—may be wholly suppressed attitudes. The relation of dialectic, which is supposed to verify itself, to hypothesis which is verified by reality beyond itself, is an obscure feature of this discussion. The Hegelian will, perhaps, reply that such hypotheses only concern "correct" statement. They may concern, as in our case, the Ground of appearances itself!

(D) Another Alleged Dialectical Transition

The "dialectic" of private property.

The present capitalistic system, argues Karl Marx, grew out of production, on the small scale, by craftsmen and peasants. On this level labour and private property were united, the worker owning his tools and what he produced. [First moment or private property régime negating itself as capitalism.] Ensues appropriative capitalistic production. The worker, a wage slave, is separated from his property. [Second moment—the negation to be negated as socialism.] The worker regains private property, not, however, in the shape of what he himself produces, but as a share in what co-operating freemen produce on the basis of the achievements due to capitalism. [Socialism as the "truth" of the preceding moments.]

This is a good case for the appeal to psychology and not to a self-verifying dialectic in the clouds. The first moment does not pass into the second at all, unless individuals with foresight, powers of abstinence and management, discover that it pays them to exploit the worker. There would be no transition at all in a world devoid of pleasures and pains. The altered position of the labourer is not his own work, but is thrust on him, if he is to live as pleasantly as his fellows. Socialism, again, if it is to come, does not grow directly out of moment no. 2. It is a plausible invention which is thrown off by individuals who wish themselves and others to live as pleasantly as possible. It is not the fruit of an "indwelling tendency outwards" in moment no. 1. *It is an imaginal creation* which is proffered to the situation no. 2 by individuals. The story of individuals is not one in which the "implicit" unrolls according to iron law; there is a play of fancy which becomes, in part, *bodied forth in things*. It is in this way that the individual acts out, in the domain of "hard fact," the character of the larger Imaginal Reality in which he grounds.

No "indwelling tendency outwards."

Our first notice of the Imaginal Principle of Creation.

§ 16. In respect of the hopes of the individual, Hegel has little to say and that little is hardly encouraging. "All finite things involve an untruth . . . for this reason they must perish. . . . It is in the kind that the individual has his notion [complete reality], and the kind escapes from the individual existence by death."[1] "Escapes!" I could respect a concrete "kind," which, in some way, secured the individual and his possessions, but not an abstraction which is said to be superior to

Hegel has little interest in the individual.

[1] *Logic of Hegel*, Wallace, pp. 43–4.

individuals, but which, when you come to look for it, is "only visible to reflection." There is nothing above individuals save a whole which includes them as *conscious* centres and yet is more. It is noteworthy that a certain scorn for the individual colours Hegel's entire thought. Even his doctrine of the State tends to enslave the individual to the "will" of this organisation, the Rational Ethical Substance or "existent Reason to which the subject must with *free* vision adapt himself." The State, alas, is never existent Reason—it is a bungler and seldom, in fact, completely sane. Hegel treated a mere *convenience for our living* too humbly; an attitude not unconnected with the disastrous State-worship which prevailed in Germany in 1914.

9. Hegelianism and After

Hegel's great services to thought.

§ 17. But although we may differ from Hegel in important respects, let us salute the memory of one of the greatest of the philosophers. Under cover of his formalism, he did splendid work in a multitude of departments of human knowledge. And he has fought a fight indispensable for human thought—he is the mightiest of the champions who hold that Ultimate Reality is "Reason." He has said all that can be said for that standpoint. And if we are able to refute his arguments, we need not trouble henceforth about lesser folk.

Schelling renounces his cult of "Reason."

It is interesting to note that late in life Schelling, who, on his own showing, had lived through various false attitudes of thought, including formalistic idealism, discarded altogether the belief that "Reason" is "sovereign of the world." He de-

tected the basic fallacy of the standpoint—the substitution of bare logical concepts, "divested of empirical elements," for the living, concrete reality which experience reveals. And in his hypothesis of the "Immemorial Being," a psychical, but alogical, power is enthroned as the Ultimate Ground.

Among recent attempts, influenced by Hegel, to maintain an absolutist idealism which does not oust Reason utterly from Ultimate Reality, Bradley's "Appearance and Reality" takes, perhaps, the first place. "Sentient experience is Reality." Truth is the "predication of such content as when predicated is harmonious and removes inconsistency and with it unrest." But he adds that Truth, as *merely* rational, never can attain this coherence and rest. The *Other*, which conditions its being, is not absorbed. Truth is not ultimate,—for Hegel Truth and the Absolute are synonymous,—but stands revealed as contradictory show. Ultimate Reality is the Absolute, *i.e.* a spiritual whole into which all appearances, rational thought included, melt harmoniously.

Bradley will not accept Truth as Ultimate Reality

To suppose a totality of this kind, which has Truth or rational thought only as an aspect, is to abandon Hegelianism outright. It is not enough to "salt" Reality with a few categories, the *derivation* of which is not even attempted. This is to fall back a step on Kantism. The dialectic vanishes—the self-sufficient, self-moving, self-proving notion has to disappear. And the spiritual background, over against which shows rational thought, and which possesses, it would seem, the *immediacy of*

feeling, raises difficulties which suggest that "Reason" retains its honours more for the sake of "auld lang syne" than because its present importance is rated as cosmic.

We have now surveyed some representative hypotheses as to the Ground or Grounds in a way which has served, I trust, to mediate very usefully a consideration of our own. In experimenting with yet another hypothesis we shall profit by frequent cross-references to favourable or adverse modern thought. In this manner we shall take account of important phases of recent speculation with which, so far, there has been no call to deal.

Part II

CHAPTER I

ON THE HYPOTHESIS OF THE IMAGINAL GROUND—THE IMAGINAL IDEA—OR COSMIC IMAGINATION

Hegel's experiment of the IDEA regarded as notional

§ 1. THE object of philosophy, as Hegel puts it magnificently, is the IDEA, the Universe treated as a Spiritual Reality. We accept and endorse this saying, which at once inspires enthusiasm and places philosophy above all ordinary human ends and intellectual interests. It is true that we shall not think the IDEA in his manner, as a Ground analogous to what is called conceptual thought. We agree with him that it is thought, but regard that thought as essentially like imagination. We differ, however, from Hegel only as idealists differ from one another. And we note the vast spiritual influence which has been exercised by this man, an influence which I, for one, respectfully and gratefully acknowledge. Readers of Hegel will find how consistently this great thinker upheld his view of philosophy's end. Always and everywhere he keeps the IDEA in the forefront of the student's mind. All departments of experience, Nature, law, ethics, politics, psychology, art, religion, etc., are explained as fields for the manifestation of the IDEA. He is a truly "God-intoxicated" man (as surely as Spinoza, whose Ground was mere "Substance," was not), in earnest with the idealism which he treated so systematically.

The experiment of the IDEA regarded as imaginal.

The Cosmic Imagination.

§ 2. We are to regard, then, the IDEA as the object of philosophy. But we are to interpret this IDEA as not notional, but imaginal. We shall speak of it, accordingly, as the Imaginal Ground or Cosmic Imagination. And note that our business is not so very unlike Hegel's. We get at the Imaginal Ground, it is true, by way of hypothesis which must be *verified* by reality beyond itself; a procedure quite foreign to the Hegelian dialectic which professed to *prove itself*. But, as regards Nature and sentient life, we have a verification-problem which Hegel also, notwithstanding the theoretical aloofness of dialectic, had to face. It will be remembered that Hegel spoke of Nature and History as "applied logic," and urged that the moments of the Notion are to be found in these spheres in novel forms. And, in practice, he did not disdain to support his dialectic by pointing out where these moments of the Notion showed in the phenomenal time-order. That he could not always detect these moments in their logical connexion, and, in accounting for his failure, made appeal to "contingency," the "bacchantic" riot of Nature, etc., was his misfortune. The point, on which I am insisting, is that he did not, and could not, maintain a *self-proving* dialectic in the regard of Nature and History; that he did seek to verify aspects, at any rate, of the dialectic by going to Nature and History and contending that much in these spheres illustrates the work of logical thought.

Our experiment seems of good promise.

§ 3. Now we, of course, have to go to experience, and, indeed, to think and talk always with possible experience in view. Verification must be sought by us wholly in experience. We note that even Hegel

tried to detect logical forms as "disguised" in the time-order. We have to attempt much the same thing in the regard of imagination. Fortunately we have a much easier job than his in one respect. We shall have no difficulty in noting imaginal forms in Nature, where, indeed, they appear almost naked and unashamed. Perceived Nature is a "stuff," such as dreams and private imagined worlds are made of, and one has no intolerable task in making this clear. The domain of the individual will present our main difficulties, but serious ones only in that quarter which is occupied by conceptual thought. We have to show that concepts and judgments are forms of imagining. I think that we shall be successful in our quest. This success will constitute verification.

In fine, the IDEA viewed as logical and the IDEA viewed as imaginal must equally be sought for in their alleged "disguises" or transformations in Nature and History. We are attempting here nothing which Hegel did not strive to do. But we are working in an adventure which, on the face of it, promises to prosper better than his. You cannot squeeze Nature out of the desiccated abstract notions of logic. But belief in a truly *concrete* IDEA whose imagining takes form as Nature—*that* is easily grasped and understandable by all. Again, you cannot squeeze *art*, however you try, out of a sterile logical Ground. You cannot get this kind of imagination, or indeed any novelty of imagination, out of conceptual "reason." On the other hand, you can make an, at any rate, very plausible attempt to show how imagination becomes transformed, in the time-order, into "reason." Our position, indeed,

is just this, Reason*ing* and its static precipitate or Rea*son* are a portion of the forms taken by the Cosmic Imagination in the time-process.

§ 4. The Logical IDEA is Ultimate Reality interpreted on the analogy of abstract reason—we have seen that, despite disclaimers, Hegel's adventure, undoubtedly, comes to this. The COSMIC IMAGINATION is Ultimate Reality interpreted on the analogy of what exists and what is done, not when we reason abstractly, but when we imagine. For us THOUGHT AS IMAGINAL is the basic reality which takes on "disguises" in the time-order; among those "disguises" being the self-same overrated, rational aspects of experience which Hegel exalted into Godhead. *Thought in the narrower sense* of the term, thought in the form of conceptual reason, is, as Bergson or Schopenhauer would say, only one of the "deposits" of the evolutionary "life-process." Unfortunately Bergson has missed the illuminative concept of the Cosmic Imagination, and his "Life" remains, accordingly, a vague "supra-conscious" power which is too indeterminate to come into clear philosophical view.

Thought, in the sense of reason, is a secondary phenomenon.

§ 5. You will observe, incidentally, how we are moving more and more toward the kind of concrete world-view wanted by the unsophisticated man. The follower of Plato or Hegel too often acts on the supposition that thought "under the aspect of feeling, perception, and imagination" is *not in its "own proper form,"* and that generalised images or pictorial representation must be transcended, in order that he may reach "adequate notions." Hegel adduces as the cause why philosophy is voted

How our view tends to popularise philosophy.

unintelligible "an impatient wish to have in imaginative conception as a picture that which is in the mind as a thought or notion." But in our view, when the theoretic situation is favourable, when the *defects* of our human mentality are not too serious, "imaginative conception," or better an *imaginal grasp*, is always to be preferred to abstract thinking. Desiccated concepts, names almost devoid of sensible elements, have their value; they abbreviate thought-processes and have, also, theoretic worth for beings of *restricted experience* such as ourselves. But, cosmically speaking, their worth may be quite *local*. All sentients may not want them. Even I do not require a concept to "think" Idealism in the presence of Nature; an imaginal grasp, touched with emotion, akin to intuition of sound or colour, suffices. And a Demiurge would surely not require concepts (substitute-facts) wherewith to "think" a solar system and its contents (primary reality); *pace* Hegel he would require "feeling, perception, and imagination," and he would find these in the complex system as sensibly intuited. Further, if he went beyond the solar system and thought about the Ground, he would find equally in sensible appearances the presence of the Power, of which Wordsworth writes:

Imaginal grasp.

> "I have felt
> A Presence that disturbs me with the joy
> Of elevated thoughts; a sense sublime
> Of something far more deeply interfused
> Whose dwelling is the light of setting suns
> And the round ocean and the living air
> And the blue sky and in the mind of man
> A motion, and a spirit, that impels
> All thinking things, all objects of all thought,
> And rolls through all things"

—would find thus in rich *pictorial* presentation the partly revealed Cosmic Imagination itself. Why, man of the study, hide your head, ostrich-like, in the arid sand of concepts when with eyes open—alike to "relations" and "terms"—you can perceive the primary reality wanted in its noontide glory? "The world of ideas" (*i.e.* concepts), wrote Geulinx, "is like a dry treatise; the world of sense . . . a poem of fancy." Exactly. Now reality, as we shall discuss it, is not to be interred in the grey cemetery of logic nor even hidden in the mists of a vaguely thought principle of "Life."[1] It is to remain a "poem of fancy." Were I able, I ought to immerse myself wholly in this poem, with intent to possess it intuitively and immediately from a central point of view. But I cannot. The "dry treatise," the conceptual makeshift of this essay, is the alternative. I endeavour thereby to fill a void: a void due to the narrowness and partiality of my direct experience. I take refuge in the "notion," not because I venerate it, but because the defects of my present position in the Universe render it convenient.

Imagination and exposition.

§ 6. Fundamentally, then, the main use of this kind of book is, not to provide dry "adequate notions" of the Hegelian type, but to guide imagination. "Nothing," says Ravaisson, "is distinctly intelligible to us save what we can picture in imagination." We must try in this way to reach truth, *i.e.* to simulate adequately in imagination the "other" present in *Cosmic Imagining*. And we are not to imagine, like the Schoolmen, aloof from experience, as if a private imaginal substitute could be somehow

[1] Bergson.

superior to the reality for which it stands! We must go to experience, where this is possible, and look at the imagined "other" itself. Note that, in so far as a book induces the reader to look at certain aspects of experience, it teaches him (after private imagining) to *perceive* rather than to think abstract notions. Its greatest possible service is to produce what Carlyle calls the "man with an eye," the man who looks at things in the right aspect; for, on the whole, it is this kind of man who matters most, alike in theoretical and practical life.

Hume's view of imagination as a "magical faculty."

§ 7. Empiricists do not admit that there is any impenetrable mystery about the products and processes in our private lives which are labelled "Reason," but even the all-destroying Hume (*Treatise*, i. § 7) found his levity arrested by imagination: "a kind of magical faculty in the soul which though it be always most perfect in the greatest geniuses, and is properly what we call a genius, is, however, inexplicable by the utmost efforts of human understanding." But imagination, in the wider sense, is more than this—it is *the plastic psychical stuff in which all human activities* (*including those artificially isolated as "faculties"*) *have their being.* We shall make good this point gradually as we proceed from the story of Nature into that of individual life. Note, incidentally, that imagination is present even in my perception of yon landscape. (1) Thus it is by imaginal amplification or supplementation that a momentary consciousness of *colourspace* becomes, for me, a *landscape* (in an outworn psychological language we talk of an "association" of ideas in this regard, though, in truth, there are no unit-ideas to be "associated");

It is more than an isolated "faculty," however "magical."

and (2) the original colours and their order are themselves imaginal. They are not, of course, altogether due to *my* imagining. I will to have them and I realise my end—that is obvious. What I get, however, in the result is a glimpse of the Cosmic Imagination as mediated by brain; this arbitrary imaginal intrusion into my circle of experience being itself imaginally "apperceived" as it comes. But I must not anticipate.

§ 8. Before stating fully the hypothesis of the Cosmic Imagination (which henceforth I shall designate ordinarily by the letters C.I.), I will cite a criticism from Mr Bradley bearing on my original article on the subject in *Mind*. He wrote to me thus respecting the riddle of the Ground of phenomena:—

Bradley's requirements and the hypothesis of the Cosmic Imagination.

"What is, I presume, wanted is something which is at once thought, and sense, and will and feeling and fancy. I do not see how Imagination can be taken as that. Imagination is not Total Experience, and, I should say, is certainly theoretical. We want more than that."

A reply and a promise.

This, of course, is a demand which is not met by any one of the great idealistic systems of History. But it is, in my opinion, a very proper and, indeed, necessary demand. And it can, I venture to say, be met completely. The Cosmic Imagination is both thought and sense—it contains the "sensible variety" *native to imagination* which has always puzzled the followers of the logical tradition from Plato to Hegel; it is also, as we shall see shortly, in one aspect, will, and, most assuredly, it includes feeling and fancy. Again, it is not merely theoretical,

for we shall be able to indicate the dynamic whereby it lives *conservatively* as the ocean of the infinite and *creatively* in the storms of change.

We are proceeding on lines which have been already traced and are reminiscent, indeed, as we saw, of a side of Hegel. We have to suppose a Ground of the character suggested by imaginal activity in ourselves. We have next to note, so far as is possible, how this Power transforms or "disguises" (§ 3) itself in the phenomenal time-order. It is because the C.I. is so rich in content and, in virtue of its eternal nature, so plastic and creative that the "disguises" (impossible for a merely logical Hegelian IDEA) exist. An imaginal Power takes shape in continual *novelty*, during any and every creative stage which *gives rise to* succession in time. There seems no element in our "total experience" refractory to this mode of explanation. Reality, as we know it, displays the metamorphoses of a principle which resembles, in all its leading traits, the same kind of activity which the poet, maker of hypotheses or inventor calls "imaginal."

§ 9. The character of this World-Ground contrasts usefully with that of the Absolute as favoured by so many thinkers in Europe, ancient Greece and even India.

The Absolute is the "complete, perfect, and finished" *spiritual* whole or divine harmony. Conceived in various ways, this Absolute Experience is held by its votaries to be above time and space. The Universe, which *is* this Experience, is accom-

The Absolute —the One Reality and the unreal "appearances."

plished; only from the standpoint of individuals, is it accomplishing itself. In this expanse of frozen reality all is determined: there is no room for the freedom of the individual. There is no genuine novelty. Is there talk of a dialectical or other "movement"? This, too, save for the finite sentient, cannot be in time. It remains, however, to account for the phenomenal time-order which seems to give the lie to these statements. This order is regarded by Absolutists as more or less "untrue," because "contradictory," or, again, it is damned outright and without appeal, according to an Indian verbal dodge, as "illusion" (Maya). The one and only existent above contradiction is the Absolute Experience.

The perplexities of the believer in the Absolute.

§ 10. You get thus the One Reality above the "appearances." But you confront, also, a difficulty like that which destroyed the One Substance of Spinoza. In *excluding* "appearances" from the Absolute, you create a *remainder*. And this remainder, being certainly real in some fashion or other, is itself the proof that the alleged Absolute is incomplete! But, perhaps, you will attempt to evade this difficulty. Take the case of Error which, as sheer untruth and contradiction, cannot possibly belong to the Absolute. How are you going to deal with it? You must either accept Error as a positive reality *alongside* of the alleged Absolute or you must force it *into* the Absolute in altered form. You have to force it in. Error is truth [1] as it steps *transmuted* into the Absolute; that is the solution you favour. But even this heroic device will not save you from your perplexities.

[1] "Error is Truth," Bradley, *Appearance and Reality*, p. 195.

"Appearances, it is urged, are not real, but 'belong to' Reality, that is to say, to Absolute Experience, and admittedly they do not belong to it *as I know and feel them*; they obtain there 'harmonised,' and in some cases radically transformed. Error, for instance, steps into the Absolute as Truth. Now note to what this contention leads. The appearances which I own are not absorbed at all—*not they, but something different is caught up into glory.* The Absolute, if not containing my possessions *just as* I have them, cannot be said to contain them at all. The filling of my narrow life remains somehow outside its circle; thus motion, change, error, activity, evil—these 'appearances' are all very insistent for me, but they have no place in the Absolute, or, at least, they enter into it in such form that their known characters are altered or wholly suppressed. My point of view simply disappears. What, then, is this alleged Absolute? It is *another* centre of experience which feels content in a way inconceivable by me; it is a god with his unique, *but still private and particular*, point of view. In other words, this alleged Absolute is not an Absolute at all; so far from being complete, perfect, and finished, it excludes from itself the appearances which are distinctively mine. A sentient experience of vast span, it remains, withal, a finite beside finites—is no Ultimate which includes all differences, exhausts all fact. To embrace these finites, a further harmonising Absolute must be posited, and so on."[1]

[1] *Individual and Reality*, p. 51. Prof. A. E. Taylor writes, *Elements of Metaphysics*, pp. 62–3: "We must be careful not to suppose that 'our' environment, as it appears to an experience which apprehends it as it really is, is a mere replica or reduplication of the way in which it appears to us." Very good. But in this case to what do "my" experience and "my" environment belong?

"Appearances" are our only assured assets.

§ 11. All attempts to belittle "appearances" are unsound. "Appearances" are, in truth, our only assured assets—the realities which we perceive and the terms in which we will, feel, and think; terms which we know through and through. They are self-attesting. It is only by becoming an "appearance" that anything can notify its existence to me at all. Even the hypothetical Absolute could only present itself to me through "appearances"; treated as if it lurked behind "appearances," it would remain of little account. I do not want a high and dry conceptual creation with which, even after writing a treatise, I can never be sure that the Universe corresponds.

Appearances cannot be assailed because "contradictory."

§ 12. There is only one tolerable way of assailing appearances—the one adopted by Bradley. This consists in urging that they are "contradictory" and, therefore, unreal in various degrees. Criticism must bear on the undue importance ascribed to the (so-called) law of contradiction, which, of value to the formal logic of mere consistency, sallies forth with preposterous pretensions into metaphysics.[1] We are to consider this question of contradiction in a special section.

The Absolute offers nothing to sentiment.

§ 13. From a sentimental point of view Absolutism is a hard doctrine. Its frozen reality has to include too much that ought not to be—*e.g.* the agonies of tortured victims, the squalor and abominations of terrestrial life, and the whole grim Calvary, as Hegel calls it, of History. It cannot possess all this "transmuted," for in this case it would possess something else. Now an Absolute condemned to

[1] Cf. *Individual and Reality*, pp. 53–62, "Appearance and Contradiction."

own timelessly such content cannot be envied and might, indeed, be pronounced insane, or obsessed by morbid fixed ideas. Again, the Absolute is useless to the religionist or moralist: it includes, by definition, everything that is beautiful and noble, but it is responsible, also, for all that is ugly and vile. We must not reject it simply because it shocks sentiment. On the other hand, finding that it does shock us, we ought to be prompted to think again on the off chance of happening on some hypothesis that promises better. Let us, in quite an experimental vein, propound one which gets rid of the fiction of "timelessness" and can make appeal, when necessary, to that great and indispensable scavenger of reality—Change.

Preliminary statement of the hypothesis of the C.I. (Cosmic Imagination).

§ 14. Our hypothesis is an imagining which conceives Ultimate All-inclusive Reality as itself imagining; imagining which, in the time-process, reveals itself in the flowing of the protean transformations themselves. Descartes says somewhere of God's freedom that God does not affirm a thing because it is so; it is so because he affirms it. The imagining of the C.I. is the making of the reality imagined; because the thing is imagined, "it is so"; and from such wellsprings anything and everything can be drawn. The C.I. resembles the Absolute in two respects. It has all its conditions within itself. It is, also, spiritual. We are not to label it One or Many; it is not a neo-platonic unity excluding all plurality, nor, again, is it a name for even a "noetic Pluralism," as conceived by James, in which everything "might be known by somebody, yet not everything by the same knower, or in one single cognitive act."[1]

[1] *Problems of Philosophy*, p. 126.

To embrace Monism is to over-emphasise the *identifying or assimilating*, as contrasted with the *discriminating*, side of knowledge. And this affirmation is fated to be "negated." If you say all is One, you have to *observe* sooner or later that it is also Many; this is no dialectical result in the Hegelian sense, but flows, psychologically, from the fact that, when you are *bored* with one aspect of reality, your attention shifts for refreshment to the other aspects which have been ignored. On the other hand, to embrace Pluralism is to recognise the importance of the Many ("the Many is a far more valuable principle than the One"[1]), but, also, to ignore their continuity, which continuity we shall grasp better after we have discussed "Consciousness."

The C.I. does not include "notions" save in so far as it includes finite sentients.

§ 15. The C.I. includes no "notions," save in so far as it includes finite sentients who use these. That which, in imagining, creates has reality present to it and has no need of the conceptual makeshifts or substitute-facts which we have to employ. If I could aware the "State" in the fulness of immediate presence, with all its complicated human activities experienced concretely together, I should not need a concept (usually a very abstract makeshift) "about" it; and if I could, further, aware other States in the same way, I should know also what is *common* to States, not by way of concept, but by immediate perception of the common aspect in the facts. Concepts are surrogates for reality which is better presented, from the contemplative point of view, in immediate feeling. But we have, also, to use concepts as substitutes for reality,

[1] Dr F. C. S. Schiller, *Riddles of the Sphinx.*

because sometimes the reality they "*mean*" does not even exist. This, as we saw, is the case of the Command-Concept. Here the reality intended or "meant" is ordered to exist, and it is feigned that the order has been obeyed. We humans, however, have not the power of the Cosmic Fancy whose imaginal act is the fact. And when we frame, *e.g.*, certain mathematical concepts, the concept of the Absolute, of "matter," of "energy," etc., very frequently, indeed, there is little behind the concept but our order. The Cosmic Imagination, wondrously fecund and plastic, has *no possible external opposition* to surmount. We sentients are heirs, indeed, of this Power, but we are opposed: there are overriding cosmic realities that defeat our wills. We revel freely in fancy, mathematical and other, in our private lives. But there are limits to imaginal anarchy. Our intentions to create remain often sterile. Observe that we can only "impose our will" on Nature by the subterfuge of altering the positions of things. When we try to "control" Nature, we move things and watch results. Mere imagining on our part elicits no favourable response.[1]

When the imaginal act is the fact.

§ 16. The creative imagining of the C.I. issues, how we shall trace anon, in Nature and conscious individuals. It is continued, at a distance and on an immeasurably lower level, by our own imagining when we create a poem, a symphony, a plan of reform, an empire, a religion, a scientific theory, an industrial instrument, etc. The C.I. imagines, and the fact is so. It is conditioned, not from the outside, but only by its own prior imagining.

[1] I am referring to Nature as we know it on this level of the physical order. The caution is, perhaps, important.

We create as does the C.I., but on an immeasurably lower level.

Our creative imagining, on the contrary, flowers on a stem of acquisition or experience, starts from what has been thrust upon us from the outside, and cannot always issue in what we desire. At the same time we ought not to forget that the poem, the symphony, the political reform, etc., are creations more real than many of the solid-seeming facts which are thrust upon sense. They are more real, for instance, than trees and stones in that they occupy and influence larger and more important areas of the Universe. The Iliad is more real, and will even last longer, than the Matterhorn. And it is a true creation, notwithstanding the fact that its authors learnt first from experience, *i.e.* from the Cosmic Imagining within which their petty imaginations had their being.

There is nothing in Nature which lies beyond the reaches of imagination.

§ 17. Turn to Nature, observe its complex content, and you will find just such a creation as Cosmic Imagination would own. Nature is literally Geulinx's "poem of fancy"; a poem portions of which you assimilate in your own private imaginal life. Your reproductive imagination, indeed, duly quickened and expanded, could take up and absorb every aspect of sensible Nature. *There is nothing present in any domain which you perceive normally which could not be duplicated in a merely solipsistic dream.* There is no call to suppose that anything, save imagination, forms the "essence" of the appearances that float before sense.

How imagination reveals itself in its very changes.

Since our world-principle is fully concrete—possessing sensible variety as well as its orders—is indefinitely plastic and manifests, in virtue of its

eternal character, in creation, we confront at last a Ground adequate to Nature. Anything, we urged, can result from imagining—even, let us add, phenomena sharply contrasted with the headwaters from which they stream. It is the character of imagination to revel in a play of transformations, and it plays the more skilfully the more it succeeds in inventing the unforeseeable and the new. But, again, just because it is always inventing, it can never quite conceal its presence. It is Hume's "magical" activity, whose magic shines through its elusiveness. It is the very wealth and wonder of the changes that betray the magician. A sort of "dialectic" proper to imagination! In the process of altering itself it reveals itself.

§ 18. Thought in its "own proper form" is not, as Hegel deemed, supersensible logic, and it is not this unverifiable logic which shows in the flowing of the time-order. Thought in its "own proper form" is imagination—the imagination whose *work* is displayed lavishly in Nature—the imagination which overlaps all its "disguises" and shines forth creatively even in ourselves. It is a movement of return to this primal spiritual activity which stirs the mystic when, sick of the shadow-world of concepts, he craves for the vision of ecstasy, the *immediacy of feeling* in which "knower" and "known" at last fully meet. This wish may be arrayed in grotesque philosophical garb, and mystical literature, in fact, is rarely such as to survive critical treatment. There are few or no mystics who possess the grasp and analytical powers of the philosopher. Many have been, intellectually speaking, quite

The C.I. is the Power vaguely apprehended by certain mystics.

common folk. But a vague consciousness of the C.I.—

> "Whose dwelling is the light of setting suns
> And the round ocean and the living air,"

must rouse any soul to fervour, and this soul will express itself in speech or literature, however unequipped it may be, intellectually, for the task. There may result a buttressing of the religion of the mystic's youth; some crude world-theory may seem caught up into glory. This is almost inevitable, since the vision will quicken the previously stagnant filling of an entire life. The Roman Catholic mystic still clings to his creed; the Sufi remains a Mohammedan, aglow with faith.

Mystics as sign-posts!

Mystics as a rule are to be respected, not for what they say and how they say it (here lies disillusionment for the inquirer), but for their strenuous suggestion to us that there is some truly satisfactory Ground yet to be descried. They are sign-posts, in themselves rickety and of little worth, which point to the direction of the great quest.

The philosophers, also, can torture their vague "intuitions."

When philosophers have the "vague consciousness," they, also, sometimes torture it into something which they want for their systems. Schelling did this when he framed the Indifference-Absolute out of an alleged intuition. Spencer, also, when, out of an "indefinite consciousness," presumably of *something*, he elaborated a Power of which we are said to know *nothing*. It is to be noticed, however, that his Unknowable becomes slowly revealed. There is a cosmic pressure in these matters which overrides the best intentions.

Illuminism is never a sufficient support for a statement of philosophy.

Once more we see that evidence for a particular type of Ground, whether for one of the rival Absolutes, for the Unknowable, for a personal God, for our own or a pluralistic ontology, must never consist solely of alleged illuminism, a "vague consciousness" and the like. Human beings, at the best, do not intuite *enough* to serve the purposes of philosophy. You are vaguely aware, in the mystics' or Spencer's or Wordsworth's way, of a Presence, but you are apt to identify this Presence with what you want, be it Spencer's Unknowable, a community of plural monads, or Allah. And, of course, merely to say one or two things about a Ground, with the dreadful iteration noticed in certain quarters of popular mystical literature, is not to philosophise. A system, which promises to include all knowledge, is requisite. This system must start from hypothesis which is not yet a principle of truth. The hypothesis may be suggested by illuminism, but it must be applied to, and tested by, experience in very many fields, before we can say that it is truth and not an experiment.

Why the name Cosmic Imagination is so appropriate.

§ 19. The C.I. is a name which describes the Ground as akin to the *most closely resembling* phase of human mentality. And, like human imagining, this Cosmic Imagining is conceived as saturated with emotion throughout. Even Bradley, it will be remembered, has not stripped his "Absolute Experience" of emotion; he contends, in fact, that it is, on the balance, happy. And, assuredly, we cannot divest the *Imaginal* Ground of an affective side. The C.I. is not, indeed, a particular Person; an insulated sentient god who rejoices and suffers as we do in the time-process, but it is not for that

The C.I. is emotional "in an eminent sense."

to be painted in grey. It is immeasurably above, not below, the conscious level at which we live. And an excellence, such as perfect emotional being, cannot be denied it. We have yet, however, to discuss its great aspects, the *conservative* and the *creative*, and, until we have done so, we cannot make it clear how we suppose this excellence to be at once *sustained and realised.*

A valuable clue.

Pleasures and pains are called somewhere by Kant, if we are not mistaken, *vital* feelings. In connection with conscious life, as allied with biologists' organisms, pleasure goes along with "an *increase* and states of pain with an *abatement* of some or all of the vital functions."[1] Pleasure marks free or furthered vital activity; pain, unresolved conflicts, the thwarting or hindrance of life. Aristotle says that pleasure accompanies the *free realisation* or "*unimpeded activity*" of a power, natural or acquired; and the clue thus obtained in the regard of embodied sentients, of types with which we are familiar, can be followed into "activity" of cosmic reach. The free infinite activity of the C.I. implies an allied emotional side, though, of course, we could not pretend to discuss this side except in a general way.

All the higher forms of finite sentient life known to us experience, we are sure, pleasures and pains; we are sure, further, that conscious life,

[1] (Bain.) *Cf.* also Spencer, *Principles of Psychology*, i. 270. I mention the qualification "biologists'" organisms, as physiological psychology has only these sorts of organisms in view. We shall see later that organisms exist in all quarters of Nature, as well "inorganic" so-called as "organic."

uncoloured by these feelings, would be a thing nothing worth, and that the higher we climb in our survey of conscious life, the fuller and richer we find its emotional side. And when we come to conceive the universal conscious life, which transcends personality, we cannot, with any semblance of probability, deny that it is emotional in an eminent sense. In sober truth, the whole practice of treating the Ground as a sort of chill logical, or other grey sort of, limbo belongs to superstition. And, in the case of a writer who regards the Ground as alike conscious *and imaginal*, the superstition no longer lends itself to any defence.

Man, we may say, is happy when his powers, natural and acquired, are realised, without thwarting, in the measure of their importance. His natural powers include those rooted in the organism, which, again, comprises the activities of the psychical existents which I have called "minor sentients." He reflects, therefore, the vital affective tone present in these sentients.[1] His pains arise from conflicts or thwartings in minor lives and also from those which belong to his own career as a conscious individual. The C.I., in so far as it is creative and manifested in the time-process, includes the pleasures and pains of all finite sentients whatsoever. The problem raised requires and will receive careful treatment.

§ 20. The play of the Imaginal IDEA, revelling

[1] This is to say that our pleasures and pains arise, in large part, from the furthering and thwarting of the lives of the "minor sentients" of which tracts of our brains, etc., directly allied with conscious experience, consist (*Individual and Reality*, p. 179).

The Freedom of the C.I.

in its own proper character, reminds us that it is also free. Hegel asserts that necessity forms part of the essence of God, *i.e.* the IDEA conceived as logical. Schelling, in his later revolt against logic, casts aside this view and once more regards the world as posited by Freedom. We have no option. Freedom is native to a Power imaginal in character —spontaneity is of the essence of the supreme conscious life as we conceive it. But this Freedom is different from "freedom of the will" as discussed popularly in regard to human voluntary actions. In the case of the latter an action, said to be free, occurs after a conflict of motives. The native freedom of the C.I. is independent of conflict, which, as we shall suggest, begins only with the beginnings of Nature. Its act simply occurs—is the expression of its free character without implying any internal strife. There is no call to suppose a sempiternal struggle *within* the C.I. And there are no antagonising elements *outside* it which can meet on its territory for combat.

The C.I. creates freely, firstly, because it includes all its conditions within itself, and, secondly, because it has *no necessarily fixed or pre-ordained directions of creation* such as an iron dialectic might be supposed to enforce. It is the proper character of imagination to improvise. I can feel something of its spontaneity when I aware imagination as it behaves in myself. Creation, with its yield of rich novel content, is play in which anything may occur.

Imaginal success excludes necessity.

And it is the utterly novel, that has never dawned on consciousness before, which marks imaginal success and at the same time confounds Schoolmen who put their trust in logic.

§ 21. We have referred to creation or evolution; and creation implies time-succession. Something exists first whereby later something else is helped into being. Now the Absolute of tradition, European, Greek, and Indian, is above time. "Timelessness" is affirmed of it in lofty language as if writers were conferring an honour. Time, it is said, is merely appearance which the part assumes when awared in abstraction from the Whole; thought tries to escape from this appearance and to reach reality as it exists timelessly in the Absolute. Such an Absolute only seems to accomplish itself. Hegel avers that the IDEA "eternally proceeds out of itself, and yet does not proceed out of itself"—it brings to its consciousness through an "other," which is itself, *what it is in itself*. This excludes the birth of genuine novelty in a time-succession that is genuinely real.

The fiction of "timelessness."

We are treating "timelessness" as a fiction, as a mere Command-Concept. And we are accepting the reality of time-succession and change. (The "contradictoriness" of these, as we shall see, matters not at all.) The C.I. is not timeless. It (1) endures changelessly as an *ἐνέργεια ἀκινησίας* in its conservative aspect as the ocean of the infinite, and (2) it changes in its creative aspect. Is it infinite? Assuredly, and just because it is infinite, it cannot be made finite by philosophers who would deprive it of the power to create and to statute a real succession in time. It is imaginal, and, therefore, it cannot be limited at all. It has the spirit of a bacchantic god. It may make or it may abolish time-succession at its caprice and there is none to say it nay.

The C.I. and time.

An important caution.

It is very important not to confuse the scholastic fiction of "*timelessness*" with a state of being in which there is *duration without change*. We shall deal with this point, and with the basic standing of time-succession, in a later section.[1]

History of the hypothesis of the Cosmic Imagination.

§ 22. I propose to discuss shortly a variety of aspects of the hypothesis of the C.I. in separate sections and, having completed this task, to suggest how the C.I., as then more fully understood, passes into creation as Nature. But, to lighten our labours, which are becoming serious, I will glance first at such accounts of the history of our main hypothesis as I have been able to glean.

A thing of shreds and patches.

This history, as far as I know it, is a thing of shreds and patches.

Kant and the "productive imagination."

§ 23. We start from Königsberg again. Kant contrasts the reproductive imagination, working by association, with the productive imagination which "schematises" the pure categories on universal and necessary lines. Kant's ponderous and creaking machinery need not trouble us further. But

Fichte's move forward.

productive imagination, thus launched on its academic career, is taken up in a new form by Fichte in the interest of Idealism. It is for him the pre-empirical activity which *produces objects*, the self-determining of the "Absolute Ego" which yields, not only the secret of the derivation of the categories, but also the "sensations" required to inflate them. The "sensations," which Kant so inconsistently drew from things-in-themselves, are now explained as products of the activity of the

[1] "Time and Space," Chap. III. p. 234.

Ego awared against the background of the non-Ego *which it has created within itself*. Now in this view we are within measurable distance of an imaginal hypothesis which gets rid of Kant and the intellectualist lumber of "pure" categories. Categories and sensible variety arise in intimate union and do not require to be stitched together. *Things are creations of imagination.* But Fichte, at the outset, still clung to the belief that at the heart of the Absolute Ego reality is "Reason," and, when later he abandoned this view, he inclined strongly to put his trust in Will, as, indeed, we mentioned when discussing Schopenhauer. But for all that we have here the *début* of imagination on the grand scale as vital to the understanding of the world, including its sensible variety and its relations alike.

Frohschammer and "Phantasie."

§ 24. Fichte's venture formed, perhaps, the inspiration of Frohschammer. I know nothing of this thinker's works at first hand, so append an account of him written in the form of a letter for me by an able critic and friend, Mr A. G. Macfarlane of the British Museum :—

"Historically he comes after Kant, Hegel, Schelling, Schopenhauer, and Herbart, all of whom he criticises. His great idea, not to say his one idea, is that of (imagination in its widest sense) Phantasie as the world-principle of evolution, which he treats of in 'Die Phantasie als Grundprincip des Weltprocesses' as 'immanent' and in 'Über das Magnum Mysterium des Daseins' as 'absolute.' The first is worthy of some attention, while the second which contains his ontology is very disappointing. He recommends this principle Phan-

tasie as bridging the gulf between the senses and the mind, and between the conscious and the unconscious, points out its immense importance in daily life and especially in the fields of art and religion, and holds that in contrast with previous principles, Idea, Will, and so forth, it is the only really creative activity. (But note that 'creative' for him means realising a potentiality pre-existent in God.) He then pursues Phantasie through the realm of thought using the correspondence theory of truth (only for truth of perception; he has also truth of Reality and truth of Ideality); he has no difficulty in showing the importance of mental picturing, and exhibits the concept as the work of Phantasie by comparison and fusion of images (hardly an adequate view!), and so in like manner the copula in judgment is due to Phantasie. The categories . . . he will not regard as *a priori* for our consciousness, though they are in the Absolute; they belong to Phantasie as the ways in which constructive thought normally works. Similarly as regards the Ideas, the Good, the Beautiful, etc., Phantasie is the power which brings these eternals to light for us. The chase goes on through Induction. This, however, is the subjective side of Phantasie, a later development of an original objective activity, which has risen from the unconscious to the conscious. The objective principle he regards *pro tempore* as using Matter and Force as instruments, and he attempts a general history of evolution on this basis. The account takes up 300 pages, but does not, so far as I could see, indicate any particular strength in natural science or psychology or possess any illuminative value whatever. My general opinion is that the writer got hold of an excellent idea and did

"Phantasie" and the categories

not know what to do with it. This is certainly confirmed by the 'Magnum Mysterium' book, which contains some amount of ontology and a lot of semi-religious stuff. He painfully extracts a list of ultimates. What sort of hierarchy, if any, they may form, I cannot discover. (Included as the only alternative to illusion is Substance, unalterable *causa sui*, unknowable, the laws of thought, identity, etc., and the corresponding laws of reality, the eternal unchanging Ideas of the Good, the Beautiful, etc., Teleology and Potentiality of Sensation, all static, *the principle of movement, i.e.* Phantasie which is, further, the principle of construction and God. I cannot find the categories in this list.) It was not given to Frohschammer to believe in 'novelty.' The actual must have pre-existed potentially; the world is the actualisation of what is stored up *in posse*—in God. Note that God is limited by all the other ultimates—the Ideas are quite atop of him—he is the most unhappy God ever pictured by a philosopher. The book does not end here, but this is the last contribution to 'First Philosophy.'"

"Phantasie" is only one of the ultimates a principle of movement and construction

Novelty disallowed

This metaphysics seems certainly uninviting, and even syncretistic in the worst sense of the word. And "Phantasie" emerges at the close only as a principle of movement and construction among ultimates which include Laws of Thought, Ideas, God, Teleology and Potentiality of Sensation, which two last might surely have been fathered by Phantasie or the finite God. "Phantasie" seems, indeed, merely the general servant who does the work of the house; a busy bee slaving for drones. Let us pass on.

A subordinat principle in a syncretistic metaphysics.

§ 25. Shakespeare, perhaps, glimpsed the Cosmic Imagination when he wrote that "we are such stuff as dreams are made of" and of cloudcapt towers and gorgeous palaces dissolving and leaving not a rack behind—as would be the case literally if the C.I. ceased to imagine! But the true poet of imagination is Blake, the full force of whose conviction was brought home to me by study of an essay on this mystic by Prof. Morrison of the University of St Andrews. Blake's task was "to open the immortal eyes of man inwards into the worlds of thought, into eternity, *ever expanding in the bosom of God the human imagination.*" This, I should say, suggests an ideal ambition to the individual during earth-life and after, if for the much abused word "God" we are allowed to substitute "Cosmic Imagination."[1] The world for Blake "originates in a divine activity identical with what we know ourselves as the activity of the imagination." "Reality," writes Prof. Morrison, on these lines "is not stable or immutable, it is an endless Becoming, and only by imaginatively projecting yourself into that flux, *giving yourself up to it*, could you ever discover what it really is." This may recall to some Hegel's attempted self-immersion in the dialectical Notion. But what an immeasurably superior prospect is Blake's to that open to the man who deals with notions rarefied to the exclusion of emotion and sense. If we could obey Blake's behest, we should be immersed in an imaginal life, *rich with emotion and sensible wealth*, and in that closing with the larger reality we should grasp the secret of its "Becoming" as well. No self-torturing then with

The poet Blake.

The sole champion of imagination as adequate Ground of phenomena in general.

If we were immersed in the imaginal flux!

[1] We require the word "God" to name a finite power of vital moment. (*Cf.* Part III. Chap. VI. "God.")

dead "notions" pushed into a semblance of progression. We should have reached the genuine world-power, whose character, concrete through and through, is plumbed by the artist as well as by the philosopher. We should have conquered the old prejudice against "sense" by finding that the sensible, when expanded, itself becomes divine!

An aperçu of "Eliphas Levi."

§ 26. Prof. Morrison calls my attention to the following remark found in the writings of the mystic "Eliphas Levi": "*It is by imagination that we see*, and this is the natural aspect of the miracle, *but we see true things* and in this consists the marvellous aspect of the natural work." I agree. I perceive "by imagination," because, in the first place, the Cosmic Imagination is present in my perception and, in the second place, because the C.I.'s gift is "apperceived" by me imaginally as well. Thus if I aware a patch of red against the darkness, there is imaginal supplementation of this, and I am said to perceive a fire. It is this secondary selective supplementation which underlies practical *inference*.

I perceive "true things." Truth is a grasp, direct or indirect, of reality. Our idealistic realism holds that I perceive things *as they are in the place where they appear*. But we shall not be able to clear up this mystery until we have dealt with the manner in which the individual is related to the organism. And that task lies far ahead.

I perceive "true things." Why?

From Blake's "endless Becoming" to Bergson.

§ 27. Blake's "endless Becoming" recalls very naturally Bergson, whose "creative evolution" corresponds, also, to *one aspect* of our Cosmic Imagination. For Bergson reality is "never something

made." [1] There is a free activity whose whole reality is in the present, rolling forward with ceaselessly ingathered past into an "open" future. All lies in a Becoming. We are to suggest, however, that there is no primacy of Becoming over Being, that the C.I. has a conservative side besides owning creative episodes, that Becoming is neither universal nor, where it obtains, necessarily without interludes. But of this more later.

§ 28. In respect of "creative evolution" Bergson's attitude is of high interest. He believes in that continual generation of *novelty* which Frohschammer, in view of "Phantasie," so astonishingly denied —sees in the Becoming much more than the unrolling of "implicit" into "explicit," "potential" into "actual," as phrases run. He might well have given "Phantasie" another and a better career by disposing of its grotesque fellow ultimates and adopting it as an Imaginal Ground. For, after all, Frohschammer is quite right in regarding imagination as the only moving and constructive principle worth entertaining. And we must remember that Bergson's universe is, by intention, a *psychical* one. In missing thus the chance of finding a *creative psychical* World-Ground in imagination, Bergson has to regret the leading oversight of his philosophy. There is nothing in the concept of an *Élan Vital*, of an indeterminate supra-conscious "Life," which serves to explain novelty and transformation. Why should this "Life" be credited

Bergson has missed his opportunity.

His World-Ground ought to have been, not an indeterminate "Life," but imagination.

[1] Though it is not clear, in this case, what is the standing of "Pure Memory" (*Matter and Memory*, Eng. trans., p. 74), which is a "made thing" and can hardly be excluded from the Universe.

with an "imperious need" to create? I suppose because Bergson holds that creation *is* taking place and that "Life," accordingly, must be equipped with something to account for it.

The *Élan Vital* is an imperious impulse to create. But does not an impulse to create in a psychical Ground carry us to the Cosmic Imagination, unless we are satisfied to murmur a phrase. There is no prospect in an appeal to Reason or Schopenhauer's Will. It is this consideration which has moved me to refer to Bergsonism in connection with the scanty historical antecedents of our main hypothesis.

I have dealt with certain aspects of Bergson's thought elsewhere, and, moreover, his system hardly concerns us at the moment. But I will point out what seems to me to be the second most important error in the articulation of his philosophy.

Bergson's second great error.

§ 29. He is, by intention, the champion of a *psychical* Universe. But in explaining this Universe he has taken over too seriously the traditional old dualism of "Life" or Spirit confronted by "Matter"; a "Matter," too, which he terms "inert" just as did the old dualist. We have in "Life," the creative, the free, and in inert determined "Matter," which thwarts and obstructs Life's creative effort, two *complementary inverse aspects* of reality. The upshot is that "Life" has to deal in such fashion with "Matter" as to dodge its opposition and transform the foe by craft, as far as is possible, into a slave—into a *vehicle* for Life's creative manifestation. To do this Life sunders itself, falls apart,

The dualistic aspects of "Life" and "Matter."

and pursues divergent paths of development, creating ever fresh novelties of evolution as it goes. By consenting to this, it succeeds in controlling "Matter." It sways an organism by taking advantage of the instability of nervous structure, directing into channels, selected by its free initiative, the "Energy" stored up through the ingestion of food. The "Matter" which compels this sundering and scattering of "Life" (in its own right a continuum of confluent, compenetrative "tendencies" or "potentialities") is at the root of the evils which mar the story of creation. "Life," the original unbroken principle, is not responsible.

The Ultimate Reality, which has "Life" and "Matter" as its complementary inverse aspects, does not come clearly on to the stage. It seems a Spinozist Ground transcending experience, save in so far as the aspects reveal it.

The "Life" that controls "Matter" recalls von Hartmann's "Idea" which directs the "Will."

The reader will observe in this relation of the *aspects*—are they not quasi-independent *existents*?—much that recalls von Hartmann's romance, in the *Philosophy of the Unconscious*, of the dealings of the Idea with the Will. The Idea, rich with potentiality, takes possession by craft of the stupid blind Will (which *resists*, unless cunningly guided and controlled), and trains it, with infinite patience and wisdom, so as to subserve its purpose. For von Hartmann, also, the Idea is blameless, but the Will is at the root of evil. He, too, posits an ultimate Ground, of which the Will and Idea are sides.

The dualism of Bergson does not seem justified. We saw long ago that "Matter," as used in so much

of science, is a conceptual fiction. But even if you substitute for the concept "Matter" that of *Nature as ordered in space and time*, you have still no case for dualism in view. For Nature is not radically opposed to "Life"; on the contrary, it is the theatre of an intense *immanent life*—the lives of *indefinitely numerous psychical existents or "minor sentients."* [1] You are apt to think of Nature only as you perceive it, and that with an emphasis of selected features, *from the outside*. If you were a superhuman and could know it also *from the inside*, you would reach the multiple "scious" [2] minor sentients, and your mechanical concept of an "inert" Matter, inherited from the old dualism, would collapse.

Nature itself is the theatre of an intense *immanent life*.

§ 30. It is quite intelligible why men incline to emphasise "resistance" or "inertia" in connection with Nature. We know Nature (save in a respect yet to be discussed) only from the outside, and, knowing it thus, we observe that bodies *resist* our muscular effort, and also, a very important point, that they *resist* modification by our *mere volition* with complete success. Our "conquest" of Nature, at any rate on this level of the cosmos, is consummated only by moving (or slowing or arresting the movement of) its parts. These acts all imply *resistances*. Resistance is thus always to the fore in our practical dealings with Nature. And it has two main features which may be illustrated as follows: (1) A stone, at rest relatively to its surroundings, *resists* being moved by my stick; (2) if itself moving, imparts movement to the stick, its *resistance or*

Why men are prompted to emphasise "resistance" or "inertia" in discussing Nature.

[1] Cf. *Individual and Reality*, pp. 117–23, and elsewhere.

[2] *Cf.* section "Consciousness" in the following chapter.

inertia being shown in another way as my muscular sensations attest.

§ 31. Now this fact of *resistance* is one thing. The internal character of *what does the resisting* is quite another. If I want to conquer Nature, I move something. This accomplished, *Nature does the rest.* This "rest" is my "conquest"! Nature resists serving me except on its own terms—that is all. And in last resort Nature's behaviour depends on happenings in the indefinitely numerous *psychical existents* or "minor sentients" implied. These existents have their habits as we have ours; habits which are much more simple than ours, and change, of course, very slowly. If these habits do not suit our purposes we are apt, as becomes baffled men, to speak of a blindly resisting or brute stuff which obstructs our spiritual life. But there is no theoretical call to suppose that Nature is so fundamentally different from ourselves that an "inverse aspect" of reality confronts "Life." Nature is aglow with *psychical life* in every quarter and cranny. It is of one tissue with the psychical reality noticed in ourselves. There is no dualistic opposition of "Life" and Nature. There are only the conflicts of centres of psychical activity, major and minor, within the bosom of the Imaginal IDEA.[1]

That which does the resisting is not in itself an inert stuff, but psychical life!

§ 32. This is all that I can find to say about the historical antecedents of the hypothesis of the Cosmic Imagination or Imaginal IDEA. Fichte might have conceived it but for the unfortunate legacy of intellectualism bequeathed by Kant. Frohschammer fails to make "Phantasie" the

[1] We shall have more to add about Bergsonism later.

Ground of phenomena, reducing it to a mere principle of movement and construction amid an assemblage of other ultimates. Bergson, hypnotised by a dualism of "Life" and "Matter," curiously reminiscent of von Hartmann's Idea and Will, has missed his opportunity. The only uncompromising champion of imagination, of whom I am aware, is the poet Blake. But poets are not expected to think their way through jungles of difficulties such as beset the philosopher. We cannot look to Blake to bestow more than his blessing on our adventure. Stirred, however, by a like enthusiasm, let us set forth anew on the quest that lies before us.

Blake stands alone.

CHAPTER II

ON CERTAIN IMPORTANT ASPECTS OF THE COSMIC IMAGINATION CONSIDERED SEPARATELY

§ 1. In proffering his "classification of all Nameable Things," as a substitute for the categories of Aristotle,[1] Mill reduces the basic kinds of realities, capable of being named, to the following:—(1) Feelings or states of consciousness. (2) Minds. (3) Bodies which have powers or *properties* to excite certain of these states of consciousness; "these latter (at least) being included rather in compliance with common opinion" than because their existence is warranted by sound philosophy. And (4) the Successions and Coexistences, the Likenesses and Unlikenesses between Feelings or states of consciousness. This classification will not seem to many sufficiently inclusive of things to which, in truth, names can be assigned. But it is best arraigned as sheer phenomenalism, the kind of idealism implied being psychological, *i.e.* that which regards the individual "Mind" as including and *owning*, in the form of "states of consciousness," all the reality

Mill's classification of all Nameable Things.

A psychological idealism is implied.

[1] These categories are not "judging" pure concepts of the Kantian type, nor are they, it would seem, what Mill took them to be. They generalise, and none too competently, the different sorts of "predicates" which can be "affirmed," as logicians express it, of a subject.

to which it has direct access. Mill retains this owner-entity "Mind" mainly because without it he cannot account for the "tie" apparent in the continuity and identity of a series of "states." Otherwise (since he regards relations of succession, etc., as Feelings) he might have said that the class of Feelings or states of consciousness comprises the whole of the phenomena of the Universe open to him. And with this he would have been nearing Nihilism.

We shall suggest quite a different classification in the course of the following chapters; and our ability to do so implies that we reject Mill's kind of idealism outright. We decline to resolve all known cosmic reality into "states" of "Minds"; of finite gods, men, monkeys, blackbeetles, infusoria and the rest. And we are resolved, also, to eliminate from our discussions the misleading and very confusing word "Mind." Henceforth when we refer to psychical existents such as gods, men, monkeys, blackbeetles, etc., we shall speak not of "Minds," but of sentients or centres of experience or conscious life. In this way we shall avoid all risk of being thought to believe in "Minds" which operate in spider-like isolation, each on its private web of "states." There is no support in experience for the belief in solipsistic "Minds" or even monads.

Eliminating the word "Mind."

Double risk involved in the use of the term.

There is another reason why the word "Mind" is best avoided. It is often uncertain whether he who uses it means the whole of an individual's experience, including perception, or merely the processes of memory, reasoning, willing, etc., which

are so often contrasted with perception. Every one, who likes precision, must have felt the atmosphere of this word to be unsatisfactory. We shall dispense with it, in the main, henceforth.

Aspects of the C.I. 1. Consciousness

§ 2. The centre of experience, Mill, is aware of contents which consciousness does not "*own*," but co-awares and lights. There is a streaming of contents in which arise the distinctions of "subject" and "object" and all that in them is. And these contents, while they distinguish Mill sharply from other sentients, are of one tissue with the surrounding psychical cosmos. The centre of conscious life, unlike a monad, has windows which are open to many of the winds that blow. These winds penetrate into its inmost chamber, and in knowing them, Mill, the microcosm, knows also in part of what the larger reality, or macrocosm, that lies beyond his circle of experience, consists. What does not come in this way must be sought by inference, which at bottom means imaginal supplementation of content directly awared. It is thus that we "escape" from the fictitious "closed circle" of the individual into the Universe at large.

The cosmos at large is not shut off from our "centres of conscious life."

The two most important aspects of the C.I., in view of a classification of Nameable Things, are consciousness and content. For the present we are concerned with consciousness.

In *Individual and Reality* I proffered a treatment of this difficult question which I can no longer regard as satisfactory. I urged, it is true,

that consciousness, as well as content, must, in some manner, be ultimate and found its source in the psychical life of the "Ground." But the "Ground" itself was treated too much in the manner in which Schelling discussed the Immemorial Being,[1] the dark power, like the impersonal Orlog of Norse mythology, which rules in secret behind the conscious gods. And there was, further, a lack of precision in the treatment of the "subconscious." The present essay is due mainly to two desires, to discuss the "Ground" as (1) imaginal and, also, as (2) conscious. Seven years of reflection have forced me to modify considerably the views which I used to hold respecting the "conscious" and "subconscious."

Consciousness and content as the two basic aspects of the Cosmic Imagination.

Consciousness (as "ness" shows) is not a reality which is the Ground of everything else. It is a basic *aspect* of the Ground, to wit the Cosmic Imagination. The other basic aspect is content. Anything is content of which there is, or can be, awareness or consciousness. We use the term content popularly with a spatial relation in view as when we speak of the contents of a box. But in metaphysics we must not be misled, as is so often the case, by the *metaphor* present in this concept. Consciousness does not *contain* the sounds, colours, passions, resolutions, etc., which we describe as its contents, in the same way as a box contains a pen and a watch.[2] If you are misled by the metaphor,

[1] This, of course, belongs to Schelling's later thinking, and has nothing to do with the Indifference-Absolute or Absolute Identity of his early thought.

[2] The box, of course, is itself only one of the contents of the world-system which is awared by the C.I.

you will suppose that it does and you will become a subjective or psychological idealist like Mill. Consciousness does not circumscribe and own these contents as its "modifications"; it awares together (*con*-scire) and lights a Many as radical as itself. The situation suggests a useful, though imperfect, simile. I awake at midnight. The darkness is inky. Of a sudden there is a flash of lightning and in the momentary glare I see the Matterhorn. The flash reveals, but it does not create, the mountain. In a similar way consciousness lights content (anything that is, or can be awared, from a simple quality to a quantity, relation, symphony, sunset, emotion, system of philosophy, Milky Way or cosmos), but does not own it as a phase *of itself*. That it may modify it, when once present, I do not deny, but that is quite another matter. The content, on its side, determines or makes definite consciousness. The consciousness of a god differs from that of a monkey in respect of its contents.

Neither aspect is reducible to the other.

We are considering these aspects, consciousness and content, separately, but they are together in and as the C.I. It is together only that they conspire to creation. Thus ours is a subjective-objective Idealism, an idealistic Realism. The C.I. is in no sense a residual mystery underlying, or at the back of, these aspects. There is nothing in the C.I. which these aspects do not comprise. Each aspect implies the other, and the C.I. implies and is both. There is no cryptic "Substance," like that of Spinoza, to be considered. Ultimate Reality is consciousness with an *imaginal* content; the plastic stuff of which the protean phenomena of Nature and our own lives are made.

Thus ours is a subjective-objective Idealism, an idealistic Realism.

There is no cryptic "Substance"

§ 3. Among the many fantastic views of consciousness is the materialist statement which asserts that it is "matter in motion." Matter is an insentient somewhat *conceived* to be only extended and resisting. We have had our smile at this travesty of thinking before. Very little superior is the view which regards consciousness as a "term among other terms." It is rather that to which all terms are present, that for which they are together (*con*sciously!), and, failing which, these "terms" would be an irrelative Many. Another and much more plausible view makes consciousness a "relation." James supposed "pure experience in itself neither object nor subject, neither consciousness nor what consciousness is of" as the primal world-stuff. Consciousness is "a *particular sort* of relation towards one another into which portions of pure experience may enter. The relation is a part of pure experience; one of its terms becomes the subject or bearer of the knowledge, the knower, the other becomes the known." But is "pure experience" conscious? It seems an abuse of language to speak of *experience* which is not conscious. If, however, consciousness characterises the Whole of pure experience, the "particular-relation" theory perishes. But if pure experience is not conscious, how does a mere relation between parts of it generate consciousness? There is an attempt here to smuggle a unique reality into philosophy. It is quite open to us to try to derive this or that *content* from other *content*, but not *con*sciousness, *which is the continuity of contents*, from a mere portion of the Many which it *co*-awares.

Theories about consciousness.

Is it matter in motion? Is it a term? Is it a relation? Theory of William James.

The conjurer, we may say, has taken out of the

What James, perhaps, had in mind.

hat what he has unwittingly put into it. In using the expression "pure *experience*" James has credited the original world-stuff with consciousness. This consciousness becomes *distinct* individual consciousness in a particular sort of relation of portions of the world-stuff. In this case it is clear that the "relation" does not constitute consciousness, but only makes it definite as *this* or *that* sentient, by providing a specific filling.

Bergson's view.

Bergson regards consciousness as primary. And conscious individuals are "nothing else than the little rills into which the great river of life divides itself, flowing through the body of humanity. The movement of the stream is distinct from the river's bed ["Matter"], although it must adopt its winding course. Consciousness is distinct from the organism it animates, although it must undergo its vicissitudes.'[1] "Matter" splits up "Life" into distinct individualities. We have dealt with this dualism of "Life" and "Matter" before. It remains to point out a possible source of confusion to the explorer in this difficult field. Bergson's "Life" is not bare consciousness; it is consciousness *and content*. "Life," he says, comprises myriads of compenetrative "tendencies" and "potentialities." It is this power, rich with content, that masters and animates "Matter" which has already a *content of its own*. "Life" has a filling, but, lacking the struggle with "Matter," seems powerless to do anything with it! It is seemingly the inferior "inert Matter" which is the occasion of "Life's" being able to create. Veritably an astonishing situation.

[1] *Creative Evolution*, English translation, p. 284.

§ 4. Now in considering this riddle one all-important point is not to say that consciousness is or resembles something else. If you make statements "that leaf is yellow," "snow mountains are more treacherous than rocks," "men are bipeds," and so forth, you imply, along with your main affirmation, an identity or *resemblance*. It is on account of this resemblance to *something else* that the leaf can be labelled yellow. If now you begin to say things about (or, as the logicians say, affirm predicates of) consciousness, you are implying an identity or resemblance. And the identity or resemblance implied is often grotesque as when it is said that consciousness is matter in motion, or that consciousness is a "term." Consciousness or awaring is not a bit like an extended, resisting object in motion. Nor, again, is it like any other "term." You can, of course, create a *concept* "consciousness" and use it as a "term," but this, again, is *content* and not the original awaring activity of which you are in search.

Don't try to say that consciousness is or resembles something else!

Consciousness does not lend itself to such predication, for the reason that it is *unique*. You cannot make a statement about it which implies that it is or resembles *something else*. Negatively you can say that it is *not* unconsciousness and contrast it with this. You have a concept of the unconscious. You rise out of the dentist's chair and are assured by others that events have occurred which had no existence for you; you are aware, even in your waking state, of colours, rocks, etc., which you don't suppose conscious in their own right and in themselves. But this negative concept, however reached, does not suffice. The positive character

How to know what consciousness is.

of consciousness must be sought in its living eternal contrast with the content present to it. This is the supreme case in which is evinced the superiority of the direct intuition over the secondary concept. For in this case the intuition and the alleged intuited are not parted, as so often, by the breadth of being, but are one and the same thing.

Thus I do not meet the question "What is consciousness?" with the reply "It is *That*," *i.e.* something else. I turn to conscious experience itself and try to aware, as "purely" as possible, the reality which I seek. And, transforming the result into conceptual thought, I find this.

Leading up to the solution.

Consciousness shines in its own light. It is not an "existence" in the sense in which a quality, knives, or mountains exist. Nor, again, is it a relation. You have a relation whenever there is a total content-complex in which two or more distinguishable elements show.[1] And a total content-complex, of so many colours or sounds, for instance, is always more than merely two or many discrete content-elements. Thus the relations of succession or co-existence, or those very complex ones which obtain in human society, imply more than a mere Many. A Many which had not some underlying continuity, differences which were not also present to an Identity, would constitute *so many entirely separate ultimates*. And this brings us to the solution.

The "underlying continuity."

§ 5. Etymology often reveals a truth just glimpsed by the makers of words. It does so here. *Con*sciousness (awaring *together*) is the ultimate con-

[1] *Cf.* section "Relations," p. 337.

tinuum of the content which, regarded abstractly, is discrete and many. In other words, the Cosmic Imagination has two basic aspects, of which all its other features are sub-aspects—consciousness and content. The former is the *co*-awaring aspect in which the content, which is radically multiple, appears together. The one is an Identity and the other differences, and they are complementary. *Con*sciousness, as aspect of the C.I., IS *the continuity* of the Many; a perfect continuity in a Universe where all is psychical; content is that which revolts, so to speak, and asserts itself in the multiplicity and "looseness" of the conflicting discrete phases of Nature and of ourselves.[1] It may be said that, on this showing, the C.I. is at once continuous and discrete; and formalists will object that the "law" of contradiction is ignored. I attach little, if any, metaphysical value to this "law," but have thought it well to lay the ghost once again.[2] It matters nothing that the statements—the C.I. is a continuum —the C.I. is discrete—contradict one another, if regarded *abstractly* from the standpoint of formal logic. The characters in the concrete C.I. are confluent; that is the main consideration. And they are so, on the minor scale, in the centre of conscious life which I call "mine."

What we can say of consciousness.

Does the saying "consciousness is the continuum-aspect of the C.I." ignore the warning given a short while ago? It does not. Consciousness is not labelled in a way which suggests that it is or

[1] *Cf.* "Continuity and Looseness," p. 333.

[2] Section "The law of contradiction," p. 277. *Cf.* also *Individual and Reality*, "Appearance and Contradiction," pp. 53–62.

resembles something else. Consciousness and the continuum-aspect of the Universe are one and the same thing.

Thus the C.I. is conscious through and through. Were it not so, there would be no continuity in its life; or rather *its* life would not obtain and would be replaced by an irrelative Many, an infinitude of closed petty universes! Do you desire to have a partial experiment on these lines? You have a satisfactory one, made by the C.I. itself, in the case of Nature. In Nature, as it first appears, the discrete aspect of the C.I., the Many, have a free swing, and continuity very largely, though not altogether, disappears.[1] The primal C.I., in its eternal essence, is a Whole which, as *con*scious or awaring *together*, pervades and dominates its members. But Nature at the outset has no complete conscious unity of its own. Its continuity as a sensible order suffers accordingly; it seems *a Whole in the main controlled by its "loose" and relatively independent parts.* This is why Nature appears to Hegel as the "self-external." This is why the portions of Nature discussed by astronomers, physicists, geologists, etc., seem to act *as if* they were mechanical, the parts changing *as if* they were solely compelled from the outside and determining in this way the fate of the aggregate. A multiplicity of "*scious*," *i.e.* of imperfectly *con*scious, psychical lives underlies even this feature of Nature. Materialism notices the result produced, but overlooks the producers.

Why continuity so largely disappears from Nature.

The loss of continuity, however, was never com-

[1] *Cf.* Part III. Chap. IV. "The Creative Appulse," and following chapters.

plete ; there persists a certain wholeness of development, to which even the discrete parts unwittingly conspire.[1] And in the realm of biology the discrete parts are already swinging back into marked subordination to minor wholes. In the sphere of human sentient life (despite incoherencies, insanity, alternating and multiple personalities, conflicting moods and the like which still bear witness to the original chaos), wholes are once again *more or less* dominating their multiple contents. We shall see that an indefinite number of psychical existents, "minor sentients" or lives, penetrate the territory where a human sentient has its being. They are never, of course, entirely mastered and usually are ill-controlled. And not infrequently they break away into anarchy, and then monstrous things, such as insanity, mar the story of conscious life.

Consciousness does not arise out of Nature, if by Nature we mean a system of content, imaginal in character, within the C.I. The various levels of "sciousness" are all, as it were, the same Sun shining through cloud. Consciousness is never "evolved." It is that which is presupposed by evolution ; that, failing which, there would be no single Universe and no evolution at all.

Consciousness is not "evolved."

Consciousness is a "universal" in the strictest sense of the term, in that in all its instances, and despite all content-differences, it is always the same. I aware as does Smith, and we cannot aware differently ; all differences, such as are said to determine consciousness, lie in content ; in that *of which* there

Consciousness as a universal.

[1] And the most distant parts, as we note in the case of "gravity," have a mutual influence.

is awareness, in moods, emotions, pleasures and pains, reasonings, and so forth. The manner in which consciousness, as principle of identity and continuity, overrides difference and discreteness is well illustrated by a fact which I cite from W. B. Pillsbury, viz. that there is a succession of pulses of attention in every "conscious state"—a pulse occurring, it would seem, every 0·2 of a second or so, being "fairly constant for all conditions and uninfluenced by voluntary effort or desire." Here we note the discrete invading the very citadel of spirit naked and unashamed. But note, also, that consciousness is continuous, despite these discrete "pulses of attention" which it *co*-awares.

The C.I. is not *a* personal god.

§ 6. The C.I. is conscious, but it is not *a* person. To be *a* person is not to be an indefinite number of other persons and is thus to be incurably limited. (I waive the minor issue as to what chance placed *a* person on the throne of reality and condemned all other sentients, human, animal, etc., to petty lives in the abyss.) The consciousness of the C.I. transcends any possible limitation of this character; it is the Identity which shows in *all* sentient lives alike. It shows, however, through Nature in human and animal life, in forms which we call mean and unsatisfactory, because we are thinking of the meagre *contents* which it lights in ourselves and yet humbler beings. And we turn, therefore, with quickened interest to surmise what conscious experience is in the C.I., considered in its eternal essence apart from the creative evolution which has issued in Nature and individual life.

To describe the C.I. fully is impossible owing to

our ignorance of its infinite *content*. To know it for this purpose you would have to be it. Experience, for which the starry heavens and "unseen worlds" past numbering are mere commas in the text of an epic, is not to be described adequately by blinking sentients on this planet. It can only be discussed in the general way ventured in this essay. We cannot even pretend to grasp the wealth of its imaginal *content*. And, considering it as *conscious*, we have to say this. Concrete conscious life is not yet known by us persons; it is rather an ideal toward which our narrow and weak personalities move. *Con*sciousness, in the eminent sense in which it is assertible of the concrete life of the C.I., is not ours at all. We aware, indeed, but we do not aware or co-aware a sufficiency of contents; we are "scious" rather than fully *con*scious. The ideally perfect standard of *con*sciousness—the *con*tinuity for which *all* things hang together—is furnished only by the C.I., which "knows together" the contents of a Universe.

The Imaginal Experience cannot be described adequately.

We are not yet fully conscious.

It will now be clear that we gain nothing by following the practice of some writers and calling the universal reality "super" or "supra" conscious. There is no awareness of contents which can be superior to conscious grasp of all contents that are to be grasped. The super-conscious cannot name a height above what the fully conscious already is. What is meant, perhaps, confusedly is that the universal reality cannot be conscious in the restricted way in which beings, like ourselves, are conscious. But this is better expressed by saying that, in the strict meaning of the term just discussed, sentients on our level are not yet fully

There is no field for the use of the terms "super" and "supra" conscious.

*con*scious, co-awaring, as they do, so little content in the continuity of their limited lives.

If we are asked—Is the C.I. "not only aware of content, but also aware that it is aware of the content," [1] we reply that its complete conscious life can lack no perfection of grasp which this completeness implies. But what of the limited modes of grasp which we finites display? You may assert that it lacks these at any rate. It does not. It awares them all in awaring the finite sentients which live, move, and have their being within its all-inclusive grasp.

Is the C.I. a "teleological unity"?

Is the C.I. a "teleological unity"; that is to say, is it all-embracing in that it is the "systematic expression" of a single coherent purpose? We shall discuss purpose shortly, but meanwhile let us put our reply thus. Its purposiveness, which has two aspects, answering to its conservative and creative activity, is only one way in which the basic *con*tinuity or *con*scious grasp can be understood. There are blocks of happening in Nature and History, which cannot be interpreted as *cosmic* purposiveness at all.[2] But the happenings in question belong, nevertheless, in some manner yet to be interpreted, to the continuity of the imaginal whole. They are, at least, co-present to, or together in, the C.I., even though they cannot be derived from its creative initiative. The problem raised will be met fully, but the answer presupposes discussions which are found in Part III.

§ 7. It has been urged that a hypothetical Cosmic

[1] Letter. [2] Even Hegel has to allow that this is so.

Experience must be finite, because there is implied a "non-Ego" which exists beyond it and limits it. This criticism tells strongly against believers in a "non-Ego" which is not psychical in character, which is somehow foreign to the Experience, and shares the Universe with it. But if the "non-Ego" means only one sort of content *within* the Experience, the objection collapses. For Experience, exhausting reality, includes and overrides the distinctions present therein. Incidentally, do not suppose that the Experience, while of the character of "immediate feeling," annuls the distinctions which we treat of abstractly in conceptual thought.[1] An immediacy, that is adequate to reality, and no other is worth considering, includes all possible distinctions in their fulness. Without identity *and* difference, likeness *and* unlikeness, there can be no conscious cognition meriting the name.

Against the view that Cosmic Experience must be finite or limited by a "non-Ego."

Still we must not overstate the case for distinctions, even within the Cosmic Experience. Fichte required his Absolute Ego to create a non-Ego *within* itself so as to render consciousness possible. This was his *basic* "*opposition*." It is not clear how the Absolute Ego could act so except in time, nor how, if not already conscious, it could act in a way which implies purpose. For the concept of unconscious wisdom or purpose is, at best, perilously like

But what call to suppose a "non-Ego" of any sort?—Fichte.

[1] Bradley regards his Absolute as an "immediate" Experience in which all thought-distinctions are transcended. Dr Rashdall criticises this as Experience which has "no power of knowing either itself or anything else," and considers it as a Neutrum or even a "thing" not experiencing at all. But why not include the distinctions in immediate cognition, if this latter is of the nature of feeling? Differences are felt equally with identities.

nonsense. But let these points pass. Is not the demand for this radical opposition *within* Cosmic Experience overdone? Is there an opposition always present in my conscious life?

The reply is—often but not always. When I am conscious of pushing rocks or suppressing "fixed ideas" I am certainly aware of an opposition; and this is thrust on me by influences which I regard as *not myself*. But the Cosmic Experience can suffer no thrusts coming from sources external to itself. And, having its content thus within itself, cannot it aware this content, as even I often aware landscapes, artistic objects, etc., without any implied opposition of "self" and "not-self" at all?[1] Why cannot Cosmic Experience aware content present to it without inventing a non-Ego?

In the C.I. consciousness is not "conditioned" by and through an opposition of a non-Ego outside

[1] Fichte's "opposition" rests, indeed, on bad psychology. A. E. Taylor points out that the perception of a whitewashed wall is "just the wall in a setting of a mass of unanalysed feeling, organic and other" (*Elements of Metaphysics*, p. 336); there is no "self" *necessarily* present with the perception. And he adds, "It is only when attention to the content of the perception becomes difficult (as, *e.g.*, through fatigue of the organs of sense or conflict with some incompatible purpose) that I am normally aware of the perceived object as a not-self opposed to, and restricting, my self. The same is, I think, true of much of our life of conscious purposive action." . . . "In ordinary social life . . . I have a strong feeling of self as opposed to not-self when the plans of some member of my immediate circle clash with my own, and again when I succeed in winning some such recalcitrant over to my own side; my self in the one case feels a repression, in the other an expansion."

In intellectual work I am often quite free from an obsessing "self." The artist must say the same.

of, and other than, the C.I. Such a non-Ego is mythological. Nor, again, is it conditioned necessarily by a non-Ego somehow created within the C.I. The consciousness of the C.I. is the continuity to which contents are eternally present.

The consciousness of the C.I. is not conditioned necessarily by a "non-Ego."

§ 8. There is a minor point at which we ought, perhaps, to glance. We urged that "*a*" person, not being an indefinite number of *other* sentients, is limited and must possess corresponding narrownesses and weaknesses. That stands definitely. On the other hand, some one may suggest that the supreme person does not exclude, but includes, all minor sentients. This contention would leave on our hands the riddle as to why the supreme person is what he is and the minor sentients of all grades are merely what they are—men, frogs, snakes, blackbeetles or lice! And it fails to notice what a terrible mixture of characters the supreme inclusive "person" would exhibit. Radically, however, it is self-destructive. In making "*a*" person include all minor sentients, you are, at the same time, saying he is not "*a*" person at all. And this kind of rebellion against the maxim of contradiction cannot stand, as it defeats your initial purpose—to express belief in "*a*" person who includes others.

Could "a" supreme person "include" all other sentients?

Rejection of the view that the World-Ground is a personal god is apt to raise hostility on two counts. (1) Men suppose that they are parting with an exalted concept for one that is depressing and likely to starve sentiment, and (2), in a practical mood, they resent the loss of an Ally who seems worth so much more than philosophy. Now we have no call to think in the service of the heart's desire, but

Why some men cling to belief in a personal Ground.

we are glad, withal, when the truth-interest permits us to do so. And in the present regard we can say this. As to no. (1) the concept of the Cosmic Imagination is altogether a more lofty one than that of a personal Ground. We are discarding a rude hypothesis for one that may well rouse enthusiasm. As to no. (2) Man may believe in a superhuman Ally or allies without deckloading philosophy with scholastic Theism. A finite god or gods may be *included* among the sentients who live, move, and have their being in the Cosmic Imagination. The case for belief in such beings is independent of hypotheses as to the World-Ground. It is a question of evidence—are the phenomena of Nature and History such as to suggest the activity of sentients of this type ? [1] If they are, there can be no opposition of any kind from general philosophy.

The C.I. is a loftier concept than that of a personal Ground.

And a finite god or gods may be included in the C.I.

§ 9. The C.I. is the standard *con*sciousness because it *co*-awares *all* content. In the case of finite awaring the "*con*" is more and more restricted until on the levels of the lowest psychical existents *con*sciousness seems almost to vanish. Take the case of one of the billions of cells that go to form an organism, and then consider one of the billions of minor psychical lives that conspire to the activities of the cell—as it might be known, not in external perception, but *from the inside*. Such a psychical life could not be called *con*scious. And to call it subconscious is futile. The "sub" evades a difficulty. We ourselves are "sub"conscious as judged according to the standard of the complete *con*scious-

The subconscious.

A source of fallacy.

[1] But *cf.* Part III. Chap. VI. on grades of sentients. The case for belief in an overruling finite god is not dependent solely on such evidence.

ness of the C.I. But we *aware*, nevertheless, within limits. The lesser psychical lives are also "sub" conscious as judged by our human standard, poor as it is, but they, too, *aware*, though only within their very restricted limits. It is better to call them merely "scious." The lowest form of "sciousness" would be that of the "Nuclears" of Part III.—a mere awaring from instant to instant of relative simplicity, devoid of anything resembling what we call memory and expectation. But even this would not be subconscious in the customary sense of this treacherous word, viz. *a kind of consciousness that is somehow unconscious!* Of course, there is no such kind. Consciousness never changes, though it may light more or less content. It is a self-identical universal.

The merely "scious"

A use of the term subconscious that must be avoided.

In truth the lives of finite psychical existents, great and small, present only gradations lying betwixt a very inclusive *con*scious experience and almost bare sciousness. I am speaking of these lives as they are in themselves—as they might be awared from the inside.

Consciousness does not descend toward the subconscious.

It is clear that there is no scope for the use of the term subconscious in respect of the gradations between consciousness complete and almost contentless "scious" lives. Awareness is always awareness—of content. The cult of the subconscious has traded too much on the assumption that lives cut off from *our* direct view are necessarily insentient.[1]

[1] In the sphere of psychology we have heard far too much of subconscious activities where, in truth, co-conscious ones are clearly implied. It is no good terming an activity "subconscious," if you credit it with all that conscious being is and does. This is the dodge resorted to systematically in "philosophies of the Unconscious."

And, further, there has been much blundering due to confusion of the two aspects of consciousness and content.

Content and the subconscious or unconscious.

If we are considering *content*, instead of consciousness, the problem of the subconscious or unconscious is seen in another light. Thus, in Bergson's words, "The idea of an *unconscious representation* [content] is clear, despite current prejudice; we may even say that we make constant use of it, and that there is no conception more familiar to common sense. . . . beyond the walls of your room which you perceive at this moment, there are the adjoining rooms, then the rest of the house, finally the street and the town in which you live. It signifies little to which theory of matter you adhere; realist or idealist, you are evidently thinking, whenever you speak of the town, of the street, of the other rooms in the house, of so many perceptions absent from your consciousness and yet given outside it. They are not created as your consciousness receives them; they existed then in some sort; and since, by hypothesis, your consciousness did not apprehend them, how could they exist in themselves unless in the unconscious state." [1] But we might go further in the regard of *content*. Consider my perception of this room, and more especially the greenness of the wall paper. I am aware of the greenness, but surely I cannot say that the greenness as such is aware of me or anything else. If so, we have an "unconscious" content in the heart of conscious experience itself. And we are now, it would seem, on the very verge of clear thinking on this obscure issue.

[1] *Matter and Memory*, English translation, p. 185.

Content, as we urged, is that aspect of reality which, taken abstractly, is *not* consciousness. And it appears to me thus in the greenness which is not itself conscious, but which consciousness lights.

Nature-content on the great scale appears to me in this way. On the other hand, nothing appears *to another* which has not an inward life *of its own*. Nature, as it appears to me, is reality known only in one aspect and *from the outside*. But if I were a superhuman and could know large tracts of Nature directly *from the inside*, I should be aware of the conscious or " scious " aspects as well.

In the case of a human organism I am able to verify more or less this belief. Thus an organism as I perceive it, an existence awared from the outside, is not itself conscious, but a thing which " my " consciousness grasps. But the organism, as known from the inside, as allied with the conscious life of another human being, shows quite differently. Its " scious " aspects are revealed and enter intimately into the life of the other human being in question —how, we shall understand later.

All content has its continuity in the consciousness-aspect of the C.I. For finite sentients, owing to their limitations of direct experience, content often seems to exist apart from the conscious or " scious " aspect. Thence flow many misconceptions and false philosophies.

§ 10. Even so-called inorganic Nature masks not unconscious, but sentient life. And in their own

ways alleged "unconscious" existents, which are known to us outwardly as perceptions, may be aware of our doings, though in what forms we are not, of course, in a position to say. And when we think, further, that Nature is probably peopled by numberless unseen agents near and above our own level of evolution,[1] there is the beginning of a renaissance in which poetry and philosophy can meet.

The old Pagan outlook comes back to us—improved.

The Pagan outlook is with us once again: seas, rivers, lakes, clouds, mountains, vegetation, storm, and smiling fields, all strike us afresh with the old glamour. The drab ugliness of our borrowed popular faith is dispelled. We are back in the romance of a Nature of actual moods, aglow with life, before which the idols of the tribe of "science" lie scattered and broken in the dust.

Transition to "activity."

§ 11. We have considered consciousness as the continuum, but this does not suffice—we have to consider it further as a power. Consciousness, as that which *awares* in all sentients, does not change. But regarded in its alliance with content, it is more than a mirror in which the Many show together.

Consciousness as "infinite activity."

It is no merely passive continuum. It is what Fichte called "infinite activity." Fichte himself, however, regarded this activity as the condition of consciousness on the ground, already noticed, that there can be no consciousness in the absence of a non-Ego, which consciousness itself does not produce. We found that this opposition is not necessary.

Why Fichte's "infinite activity" fails us.

We must add that "activity" (when held to condition consciousness) lacks that essential which consciousness emphatically IS. *Failing an ultimate continuity, there is no Common Ultimate*

[1] *Cf.* Part III. Chap. VI. on grades of sentients.

Reality to be "active" at all. There is no *con*scious togetherness—only a "Multiverse," the elements of which lie hopelessly apart.

It is this activity of consciousness, in concrete alliance with content, which underlies conservation and creation including the transformations of "Energy" so called. We pass, then, to consider the topic of activity.

Aspects of the C.I. 2. Activity

"Quod non agit, non existit"—Leibnitz.

"What *is* this Infinite of Things itself, which we name Universe, but an Action, a sumtotal of Actions and Activities.—Carlyle, *French Revolution.*

§ 12. There is free infinite activity, as Fichte urged, but the activity does not "condition" the universal consciousness—it is this consciousness itself. Activity is *whole* just because it is this *con*sciousness—the cosmic consciousness which *com*prises its content, not passively, but as self- identical power.

Fichte held that activity is attested by direct intuition. And we must allow that it is not a content in the ordinary sense of the term. The reason is not far to seek.

It will be remembered that we could not say that consciousness is, or resembles, something else (§ 4). It is self-identical or self-resembling. If, therefore, activity is consciousness, we must go directly to consciousness, to concrete activity-situations, to grasp it or rather *be* it. We must

Activity is not a content like green or heat.

aware it in an intuition in which intuition and intuited are one. And note that we cannot expect to aware it as a *content* like green, heat, neuralgia, a dream or anger; we shall not be able to say it is such or such in the way in which we can assert that a ball is round or red. The ordinary psychology of "activity-situations" takes account, indeed, of sensible contents, but these contents are not the indwelling power common to them all.

Activity and believers in the Absolute.

"Activity," so important for Fichte, has no similar standing in Hegelism and neo-Hegelism. This is because writers of these schools want to believe in a complete, perfect and finished Absolute in which there is "nothing doing" and no call for anything to be done. A like attitude characterises much of Greek, neo-platonic and Indian thought.

Belief in the Imaginal IDEA reinstates activity.

But when accepting the Imaginal IDEA or Cosmic Imagination we reinstate activity once and for all. Activity is native to the character of the IDEA; in an imaginal Universe it must be true that, as Leibnitz says, what does not act does not exist. Imagining is self-active. It is active in the way of static conservation, but it cannot be restricted to this. It is at home with the perfect above change, but it is free, also, to create; its being is not staled with an unalterable fixity of content. Its infinity overflows into novelty.

§ 13. Bradley contends that activity implies succession in time,[1] but this is true only of the

[1] Bertrand Russell also holds that "activity implies the existence of time, which cannot itself be active" (*Principles of Mathematics*, p. 450). We shall reply to his view (Part III. Chap. IV.) by trying to show how time-succession arises out of changeless activity in the C.I.

creative side of Cosmic Imagining. The C.I., regarded as the ocean of the infinite, is an activity of *conservation* awaring static or changeless contents ; the ἐνέργεια ἀκινησίας. The C.I., in so far as it is manifested in *creative* episodes or world-processes, gives birth to a dynamic in which changes occur in, or rather *as*, time-succession. "God," some schoolmen said, is "absolute actuosity" ; failing the background of infinite *conservative* activity, there could, as we shall see, be no *creative* appulse, no time-processes, no evolutionary dynamic at all. The conservative activity is presupposed by the creative ; the restfulness of its "beatific vision" implies merely that the contents awared are not changing, not that the state is one of passive awaring.

The conservative and creative sides of the active C.I.

It may be that divine conservative activity is never wholly unbroken by creative episodes ; it may be that there are alternations of Nights and Days of creative evolution which hold universally, but that is an issue which no human being is in a position to decide. We are safe only in contending that there is room in the C.I. alike for the awaring of *restful content* and for the awaring which involves *content-changes*, whether these static and dynamic phases exist together or in alternation. In so doing we recall two familiar aspects of imagining, as it occurs imperfectly within ourselves ; have experience behind us as we talk.

There is thus an *active* conscious imagining at the roots of reality. And the activity is underived —is spontaneous. Later we shall suggest how this activity issues in the creative evolution of Nature and finite sentients in a time-order, which is not

A "principle of movement."

merely "phenomenal," but is posited by the C.I. itself. And we shall find then that this imaginal activity is the "*principle of movement*" required by idealism. Hegel proffered a principle of this kind in "contradiction," Schopenhauer and von Hartmann in a vague and truly misdescribed "Will." *Cosmic "Will" is only the Imaginal* IDEA *as self-conservative and as self-changing.* The most interesting feature in the birth of Nature (which includes that of space and time-sequence) is the way in which, from a state of restful harmony, the descent into time-sequence, discord, and imperfection *begins.* We seem able to deal with this problem with some success.

Consciousness and content never fall quite apart.

We are now considering the C.I. as concrete, as an alliance of consciousness and content. This alliance is expressed in its two ways of activity, the *conservative* and the *creative.* (Under "creative" fall as well dissolution as evolution, destruction and construction, for both these forms of change imply imaginal novelty.) Both conservation and creation figure even in time-succession, though here the changeful aspect dominates. It is essential to note that the consciousness and the content sides of the C.I. never fall entirely apart; that the one can never be indifferent to the other. There is always some continuity even where discreteness has its worst conflicts. There is always the conservation side in all tumults of change, in the very heart of the Heracleitan or Bergsonian flux. And, though consciousness is the only strict identity or universal, there is, also, an imperfect identity, which we call *likeness,* present in the *common* aspects of content. On the other hand, though consciousness as such

never changes, it shows in *many* centres of finite experience whose lives are different because of the differences of their contents. We shall be dealing with this matter frequently in various lights.

James on "activity" in human experience.

§ 14. James, considering productive "activity" in the human individual, cites Edward Carpenter anent "the law that a movement from feeling to thought and thence to action, *from the world of dreams to the world of things*, is everywhere going on. Since at each phase of the movement novelties turn up, one may fairly ask with Carpenter, whether we are not witnessing here in our own personal experience what is really the essential process of creation. Is not the world really growing in these experiences of ours? And when we predicate activities elsewhere, have we a right to suppose aught different in kind from this?"[1] In the regard of Change, perhaps not. We ourselves are to descry novelty in the causal dynamic of Nature; we shall succeed in tracing the *imaginally novel* even there. But in the above-noted movement from "dreams to things," which is the power guiding civilisation, there is creation veritably thrust upon our gaze. And the essence of it is always imaginings, for which experience, as it comes to us originally, or, as James puts it, in "feeling," does not account. (It is a mere superstition that all wisdom arises from experience, as the stupid old empiricists used to believe.) There is genuinely fresh achievement which has been merely *prompted* by desire connected with the old situation of which we are to be rid. Imagination improvises. And it succeeds ordinarily only after many trials and errors. All social and

[1] *Some Problems of Philosophy*, pp. 214–15.

political measures of reform are of this type of imaginal experiment: outputs ever new of Hume's "magical" activity.

James urges in the case of "activity-situations" in ourselves that there is no separate causal fact. "Rather does a whole subsequent field grow continuously out of a whole antecedent field because it seems to yield new being of the nature called for, while the feeling of causality-at-work flavours the entire concrete sequence as salt flavours the water in which it is dissolved." [1] He thinks, further, that the word activity has no meaning outside experiences of "process, obstruction, striving, strain or release," and he has in view "something sustaining a felt purpose against felt obstacles and overcoming or being overcome." We cannot admit, for reasons already stated, that activity means only a particular set of contents. Assuredly activity is allied with content, along, and in contrast, with which it is intuited. But itself is no special content to be dissected out for survey like a colour, or muscular sensation, or taste. It is not, *e.g.*, an "effort" or "strain," though these sensory experiences *may* attend it. Do not call activity unreal because you and others are not aware of it, except in a case of striving or sustained effort against an "obstruction." The eye normally does not see itself. You are often unaware even of health, and, perhaps, never fully aware of it save as contrasted with disease. But you do not for that regard health as a myth. Notice that the health-sensa-

[1] *Problems of Philosophy*, p. 218. The steps of change, however, in imaginal improvisation are surely often strikingly sudden and depart sharply from the antecedent "field"?

tions, which you overlook, belong to content. It is not only the aspect of activity that drops occasionally out of our partial human view.

James' insistence on "obstacles" leads to a very one-sided view of activity, as present to human experience. We have to add that (*a*) "activity-situations" are not always those in which obstacles are met and overcome, and (*b*) activity is not always directed towards change. Touching (*a*) we aware ourselves as active in other "situations" than those of "process, obstruction, striving, strain or release" mentioned by James. I am actively conscious of content, *which implies no obstacles*, in play and healthy physical living, in art contemplation, in much of intellectual work, etc., and this "*unimpeded activity*," in fact, marks the major part of my perceptive and other life. James in discussing activity seems to have had in view only the case of effort in "sustaining a felt purpose against felt obstacles"; a very partial aspect even of our voluntary life. (*b*) activity is often quite *conservative*, as when I am intent on awaring a given content, striving merely to maintain an experience undisturbed—as the lover prolongs the first kiss or the painter his rapturous vision of a sunset. It is needful to take careful note of this, too often ignored, feature of human activity. We have here an ectype of that ACTIVITY OF REST which we ascribed to the Imaginal Ground.

James overlooks "unimpeded" activity and activity that is not directed toward change.

The activity of rest.

If "activity" belonged only to special psychological "situations" and could be located as a particular kind or kinds of content in these, its importance for philosophy would vanish. But, in truth,

Activity does not belong only to special psychological "situations."

it is not content and belongs rather to the consciousness-aspect of the C.I., an aspect which is the universal continuum and also power—power to aware content changelessly and power, also, to work changes in it.

Pierre Janet on consciousness as an "active" reality.

Pierre Janet, writing like James primarily in connection with psychology, has noted that consciousness is essentially *active* reality. "This activity . . . is above all a synthetic activity, which unites more or less numerous given phenomena *into a new phenomenon different from its elements.* We have here a *veritable creation,* for, at whatever point of view one places oneself, the multiplicity does not contain the '*raison de l'unité,*' and the act by which the heterogeneous elements are combined in a new form is not given in the elements." [1] When we get beyond human and animal sentients and moot the activity of a *cosmic* consciousness, we see that aperçus such as Janet's will carry us very far. A glimpse of the truth that consciousness is *active* characterises Kant's doctrine of the "synthetic unity of apperception." It was this scholastic unity which Fichte was on the verge of converting into an *imaginal activity* explanatory of the Universe.

Kant and Fichte on this point.

Human sentient life a prolonged "activity-situation."

Human sentient life is a prolonged "activity-situation," as well conservative as creative. The poorest point of so-called passive sensation, the listless reverie, the contemplation of artistic objects, the struggle up a mountain, the battle against vicious instinct, unim-

[1] *L'automatisme psychologique,* cited by Prof. Macdougall, *Body and Mind,* p. 369. An activity of creation (not of conservation which is equally important) is being discussed.

peded play, etc. etc.—all these alike imply activity, though none, indeed, activity of which the entire source lies within ourselves. The finite sentient on our humble level is invaded by contents, the active sources of which are hidden from it. But from a central point of view, that of the C.I., reality, as well unchanging as changing, is a whole of infinite imaginal action. The petty sentient, human, animal, and sub-animal does not aware in this all-inclusive way. It is undergoing a siege of cosmic actions which compass it about and penetrate it. It awares at the outset only in the service of its practical reactions to these hidden actions, and its understanding of the cosmic situation is correspondingly restricted.

Historically speaking, this view is illustrated by the manner in which conscious life comes to shine through the (biologists') organism. Conscious life rides literally on "action's storm." Consciousness as it dawns in the history of organisms, and as it shows specially intense in "hesitancy-situations" and at "growing-points," is *clearly not a passive mirror of no use to the body concerned*, but an *activity* creating, through content, the responses, often quite experimental and tentative, which surroundings require. It would not advantage an organism to live consciously in the struggle for existence, unless there was a positive guidance of its reactions secured; unless the active consciousness improvised something useful which was not in being before. Conscious life is no inert accompaniment of nervous function; "consciousness," it has been said, "is interest," and, fraught thus with interest-content, it *works*, at first, in the service of body. This

In the history of organisms consciousness shows "activity" at its very birth.

harmony, however, is broken on the higher levels, animal and human, where the "interest" of conscious life is often opposed to the integrity and wellbeing of the body. When conscious life is "dawning," it creates as if its main concern were the welfare of the allied organism; later it creates, and also conserves, content which is interesting for its own sake. Thus an amoeba awares *as if* it is only a body conserving itself in the struggle for existence. But you or I may sacrifice our bodies in quest of adventure for its own sake or in pursuing thought which makes unduly severe calls on the endurance of the flesh. Conscious activity has freed itself in part from the trammels of the body.

We cannot pursue this topic further at the moment, but it is worth noting that, from the "interest" of the most crude instinctive attention up to the "interest" of the most rapt voluntary attention, such as accompanies the planning of a campaign or the writing of mathematical logic, consciousness is never an inert spectator. In our higher mental processes its active character is fully disclosed, and in the life of musician, poet, and philosopher, for instance, an intense consciousness is embodying its creative work, clearly and unmistakably, in the tissue of thought itself.

Consciousness as active on relatively high levels.

The higher conscious activity creates in ways altogether beyond the requirements of the allied body. It is, we shall find, in the persistence of this "activity," when the allied body has perished, that we have a guarantee for what is popularly called the "immortality of the soul." But we have far to go before we can discuss this inviting question.

§ 15. What, now, is the interpretation of activity in the regard of causation? The obvious reply is that activity is the wider reality. There may be activity, as we saw, with restful content. There may, also, be activity which is expressed in content as change. And it is only when we come to consider change that causal problems proper arrest us. But change, again, raises the problem of time and more particularly that of time-sequence. And it will be best, accordingly, not to discuss causation until we have made some preliminary statements about time and change. Activity and causation.

§ 16. Having dealt with causation we shall pass to consider what is the reality at the back of the very cryptic symbol "Energy" as used in physical science and even by certain writers [mental "Energy"] in psychology. A destructive criticism of "Energy" has been submitted already (Part I. Chap. II. § 9). It is preparatory. "Energy" symbolises, in a distant way, content-activities of an imaginal world-process. Activity and "Energy."

§ 17. More timely is the question—What is the relation of activity to willing? We can be quit of this issue forthwith. Activity and willing.

You can say, if you insist, that the Imaginal IDEA or Cosmic Imagination "wills" either *conservation* of restful content or *creation* of change and novelty, as its freedom decrees. An era of evolution and dissolution would be an act of creative "willing." A conservative act of divine "willing" is not difficult to conceive: you are in an attitude akin to this when you prolong contempla- Can we speak of the Cosmic Imagination "willing"?

tion of a picture, intent on stable content, rather than change.

Mythological treatments of "Will."

But we must be careful not to speak of "Will" as if it was (according to the usage of writers like von Hartmann) a sort of autonomous power equally important as, and often even over-riding, the IDEA. It is one of Hegel's great merits to have made the IDEA ultimate and all apparent "other" reality just its manifestation or specification. And if you discard his Logical IDEA and adopt in its place the Imaginal IDEA or Cosmic Imagination, you will understand that there can be no question of raising "Will" to the position of the Mayor of the Palace.

What Cosmic "Will" is.

Cosmic "Will" is just the IDEA, regarded as active in conservation or creation or both.

The IDEA, said Hegel, is not so powerless as to be unable to realise itself. But others have favoured a dualistic contrast between a merely *contemplative* Idea—an anchorite only able to think—and a *practical* "Will" conceived, I suppose, on the analogy of the man of the world who "gets things done."

Idea and Will in von Hartmann's *Philosophy of the Unconscious.*

In von Hartmann's *Philosophy of the Unconscious*, an all-wise Idea resting in its primal blessedness is disturbed by the activity of "empty volition" or "Will," and invents the world-process in order to save itself from the disturber. This is mythology. *All thought is action.* And there is certainly no volition, which could be "emptied" of ideal content and remain a fact. Note incidentally how, in von Hartmann's system, the (Logical) Idea becomes more and more inconsistent with itself. It has to *direct* the chariot of the world-process. But direction itself is a form of action. The Idea acts, in

fine, not only within itself, but beyond itself. It is discussed as a power to initiate change. There is a fatality about this kind of philosophical débâcle. You invite disaster when you invent the powerless Idea. You are forced to accord it power as you go. A purely "theoretical" or contemplative Idea is shown to be nonsense.

Why we prefer not to make use of the phrase Cosmic "Will."

I have urged that the reality answering to your belief in Cosmic "Will" is the IDEA as conservative and creative. But the term "will" is not proscribed. On the other hand, this term cannot be used to denote all fields of cosmic activity, unless we accord it a meaning much wider than that sanctioned by popular usage or even philosophical convenience. "Will" and "volition" are names best reserved for situations in finite sentient life in which there is conscious *choice* and pursuit of ends to be realised in a time-process. Accordingly, we shall employ the wider term "activity" instead of the narrow "will," whenever we have occasion to mention the Cosmic Imagination as conservative or creative in any field.

"Will" and the human sentient.

Let us descend a while to the human sentient and consider that choice and pursuit of a more or less clearly represented end which is what most men mean by "will." This is not the only kind of striving recognised by psychology, which includes such "will," along with impulse, instinctual response, etc., under the general head of "conation." But it is a sort of "conation" in which the nature of the process is least hidden from us. And what is the position of "ideas" in regard to "will" as thus narrowly understood ?

"Conation," urges Prof. Stout,[1] is a complex experience which contains "a simple and unanalysable element uniquely characteristic of it—an element from which the whole derives its distinctly conative character." This is a "felt tendency," not identical either with motor sensation or affection (pleasure and pain). "Felt tendency" and affection are distinguishable, not separable; and he uses the term "interest" to express the "unity of conative and affective characters in the single process." Now clearly this "felt tendency" refers us to *content* which occurs in a process. And the process is that of the expansion of an idea—of the initially sketchy idea of the end sought—the implicated pleasures and pains being the feelings which attend furthered and thwarted psychical life. It is in this sense that we can say with Bradley that "will is the self-realisation of an idea." But note carefully that this self-realising idea (or, better, ideal field) does not require always "another existence" on a level different from that where it begins.[2] Consider the following illuminative example of "willing." It displays all the essentials of this process.

The fundamental character of human "willing."

Suppose that I am day-dreaming and choose to dream about an aeroplane instead of a motor-car. I "will" now *merely to picture more vividly and richly* what I picture already. In this case the expansion or "self-realisation" of the ideal field obtains no "existence" on another level of reality, *e.g.*, in the

An illuminative example of "willing."

[1] *British Journal of Psychology*, July 1906.

[2] "It is will when an idea produces its existence. A feature in present existence, not in harmony with that and working apart from it, gives itself another existence in which it is realised and where it is both idea and fact" (Bradley, "On Pleasure, Pain and Volition," *Mind*, No. 49).

shape of a new fact in the ordinarily perceived world of sense. It remains a process within my private life. "Will-process" here is seen to be an active imagining which changes creatively so as to satisfy me; the "affective" side of satisfaction marking my *fuller life*. Means and the slowly developing end constitute a private imaginal sequence. In this example of "willing" we approximate closely to the imaginal life which forms the *creative* side of the C.I. "Will," in this empirical process, is one of the most transparent of the "disguises" which the imaginal world-stuff has donned.

There is no quasi-independent cosmic power or distinct human faculty which can be isolated from all else and labelled "will." There is just the C.I. *active* in indefinitely varied quarters, the lives of finite sentients figuring among these. Finite sentients, again, having over against them so much that they desire bettered or not to be, are constrained to strive consciously. When they "will" change they are active in *re-imagining* or remoulding, according to the heart's desire, reality, *itself imaginal*, as it is thrust on them. The total "willing" of finites, as manifest in creation, is thus a great imaginal power by which the fate of the particular cosmic system in which they arise is in part decided.[1]

The total "willing" of finite sentients is a great power in the imaginal creation.

[1] "To use Carlyle's expression, 'The future is nothing but the "realised ideal" of the people.' Ideals, once they have taken firm possession of the national mind, are the guiding motives, the permanent forces, the lodestars of nations. The whole French Revolution is contained in Rousseau. The whole English Free Trade policy in Adam Smith. English Radicalism is contained in Bentham and Mill" (Dr Sarolea, *The Anglo-German Problem*, p. 149).

It is with good reason that we turn from reality as it is thrust arbitrarily upon us to reality as we would have it in the play, the poem, the romance, and even the pantomime. We are vaguely aware of the imaginal freedom native to our source. We, too, would create unshackled. In the main we are now bondmen in a world of slaves, but we sip freedom in such interludes as sport, merry-making, adventure, the lawless realm of poetry, and the like afford. Immature sentients, unfit to be really free, sure to create chaos could we remould life each after his particular desires, we must bear with our passing servitude as best we may. To those who can pierce the veil, the future, at least, is rich with promise ; the day of a divine freedom, more glorious than anything of which poets have dreamed, lies ahead.

"Ideo-motor" action and what is implied.

It is well not to overstate the part played by the affective (pleasure and pain) features of the ideal field in prompting action. And this, I gather, is James' meaning when he asks us to regard "*ideo-motor*" action, consequent on "occupancy of the mind" by an idea or perception, as the fundamental type of "willing." This statement is important as rebuking those who want to refer all prompting to pleasures and pains. It accents the fact that ideas or perceptions, more or less neutral in respect of pleasures and pains, may count for very much in prompting action even of physical kinds. Thus, when driving a car, I make innumerable decisions on the spur of quite neutral perceptions. But we must remember that pleasures and pains are not foreign presences which somehow mar the purity of "ideas" ; they are feelings which mark furthered

and thwarted psychical life; in short, are intimate features of the ideal field itself. Action remains "ideo-motor" whether the field is more or less neutral in point of pleasures and pains or not.

Discussion of the problem of finite freedom in volition deferred.

Some one will protest, perhaps, at this point that we have been too intent on the content of finite will-processes and have ignored the vexed question as to whether decisions are determined or not. Is freedom of the human will possible, and if so, how? If we are free, we shall surely be able, *pace* Bergson, to explain the how. But the topic of human and finite freedom generally carries us back to activity, and we have yet to consider free activity on the cosmic scale before we can discuss it effectively in the case of a finite sentient. Be sure, however, that the importance of the issue is not underrated, and that it will be confronted in full later.

Human sentients may be free in other respects than that of "choice" between contending "motives."

Aspects of the C.I. 3. The C.I. as Superlogical

What we mean by saying that the C.I. is not logical.

§ 18. In contending that the C.I. is not logical, we mean, first and foremost, that the Idea "in its eternal essence," to use Hegel's own phrase, is not a whole of gaunt categories linked by that sole available means—dialectic. We are rejecting the one and only adequate form of Panlogism, the doctrine that the real is rational and the rational is real, the doctrine that Reason logically articulated is sole substance and "sovereign of the world." This

Hegelianism cannot be modified essentially.

is the true Hegelian Rationalism, and any modification of it is a concession to the adversary. It is not enough for votaries of Hegelianism to write indefatigably about "relations" and to avow more or less sympathy for Reason, taking over odd "categories," while leaving them, with the abandonment of the dialectic, *underived*. Your neo-Hegelian, who attempts this kind of thing, is a deserter. Despairing of Panlogism, he has quitted the citadel, merely carrying away such trifles as do not impede flight. He is no longer in earnest with a world-historic hypothesis: the supposal that Logical Reason is *sole* ground and sovereign of reality.

We have got rid of Reason, but what of processes of reason*ing*?

Now we have considered the case against the categories and the dialectic, and if we have decided aright, Reason or the Logical is not the ultimate Ground. The IDEA is not the concept of our petty human experience writ large and deified—it is concretely imaginal in character. Thus we have got rid of "Reason," the abstraction which looms so large in the history of philosophy. Have we equally got rid of reason*ing*? Can the C.I. be said to fulfil its life in part by processes of reason*ing*, and is that reason*ing* of the type which is discussed in a text-book of logic?

The C.I. as conservative is above reason*ing*.

In so far as the C.I. is conservative and awares static content, it is above reason*ing*. To adopt in this connection a saying of James, "all conceptual knowledge stands for intuitive knowledge," and the C.I. may be described generally as self-intuited, imaginal reality which "stands for," and is "about," nothing, having the immediacy of feeling, and being itself its own object. Enjoying its own and all content, the

C.I. is above the level of those conceptual dodges by which you and I *supplement* our meagre direct experiences. Since things, the relations and the common features of things, are co-present in perfect clarity to the divine consciousness, a supplementative reason*ing* "about" them were absurd. All that is to be known is that of which there is direct awareness: awareness with a content as superior to reasoned knowledge or a "system" of ordered propositions as the latter is to a mere prick of pain.

Being above the level of concepts, the C.I. is above that of the human "logic" which supplies rules for their use and control.

"All conceptual knowledge stands for intuitive knowledge and terminates therein" is James' full saying. When it *can* terminate finally therein, there is no further use for conceptual reasoning at all. We ought to want, not the shadow but the substance of reality. In an imaginal expansion into the Cosmic Imagination lies the hope of perfect understanding of the Universe. "Nothing," as Ravaisson said so truly, "is distinctly intelligible to us save what we can picture in imagination," a reversal of the Hegelian tradition with a vengeance! All minor modes of understanding are so many makeshifts. An intuitive imagination enjoys that supreme mode of understanding [1] reality for which mystics crave. It "stands under" things; a reasoned system only "stands for" them.

In what lies the hope of a perfect understanding of the Universe.

Reason*ing* originates in the world of change in the service of sentients with a narrow direct ex-

[1] Note (as so often) the clue latent in the etymology of a word.

The rise and value of reasoning.

perience. The first practical inferences in animal life are imaginal anticipations which further *behaviour*. In the case of Man, "the means to gratify his feelings and his physical needs require a long and far-sighted process of calculation and thus reason [reasoning] becomes the main factor in vital adaptation." [1] The need to supplement direct, but momentary and narrow, sensible experience dictates the rise of *pictorial* reasoning—the device of *conceptual* reasoning is a later and advanced form of a development which has always a life-interest in view.

Reasoning in a theoretical interest.

But there are other life-interests than those at stake in organic adaptation to physical surroundings. The reasoning, at first useful as a means to action of a restricted kind, becomes valued later as a means toward comprehending [2] or grasping reality at large. It is now serving what we call a theoretical interest. It issues in a great collection of propositions arranged according to a plan. But these propositions, abstract and substitutive devices, only to be assimilated piecemeal in a wearisome succession, supply a poor makeshift for the Universe. The makeshift is only tolerable because an intuitive experience of the Universe cannot be had. It ought not to be regarded as an end in itself. Our goal lies not in the propositional system, but rather in the reality of primary interest which it is "about." Had we this reality present to us, we should cast the makeshift

[1] Dr F. C. S. Schiller, *Riddles of the Sphinx*, p. 114, 2nd edit.

[2] Note, again, the clue present in etymology. To comprehend is to "grasp together" after the manner that the universal *Con*sciousness *com*prehends or holds together the diversity of its contents.

aside. But having no intuitive knowledge of the entire Universe, we are glad to have recourse to a conceptual system which "stands for" it.

The ideal of contemplative knowledge is a return to the intuitive in which all content aspects, "common" or particular, are clearly awared. But, of course, very many of our human conceptual schemes cannot "terminate in" intuitions, circumstanced as we are. And there are no intuitions, it would seem, in which certain of our impressive command-propositions (Part I. Chap. II. § 4) could terminate, even for a god. These devices decree a creation which we discuss *as if* it had been effected. We may desire to invent when the suggested novelty cannot be brought into being. Thus propositions about "Matter" have no intuitible counterpart in things (the concept "Matter" itself would be of no value to a god). On the other hand, there are many creations which arise first as sequels to decrees originating in ourselves. A great cosmic achievement is that novelty which buds off from finite sentient life. This, indeed, is a consideration which may help us to deal with Bradley's alleged insoluble enigma: that presented by the existence of finite sentients. They are essential to an imaginal Universe—they give rise to a wealth of fresh content which only *multiple* related individuals could yield. Consider the harvest of the emotions alone! The C.I., as unbroken consciousness, could contain nothing of this kind.

The C.I. reasoning and Reason.

We are now clear as to the standing of reasoning. The C.I. as creative imagines in a time-succession; it creates the "facts" as it imagines. Things are

its thoughts; the imagining *is* the creative work. Within this imagining arise centres of "scious" and conscious life, which (creative, also, in their own right) require inventions to further "vital adaptation." With these needs is born reason*ing*—how we shall see in more detail later—and the complicating of this novelty proceeds apace. Reason*ing* as "practical inference" begins with imaginal supplementation of the directly awared sensible *datum*. Its final stage, for many men, is that of being an end in itself. Reason*ing* and its propositional precipitates or systems become "REASON" in capitals. Reason*ing* illustrates a form of *creative* initiative; "REASON" is its *conservative* or relatively stable precipitate. "REASON," however, is greeted, not as *one of the modes of the universal plastic life*, but as sampling the general character of that life. And this way lies the greatest of world-historic philosophical mistakes.

Suppose now that, in the very remote future, there dawns a "divine event" [1] and the time-process, in our quarter of reality at any rate, closes in a night of rest. The harvest of novelty is possessed by the C.I. in a static form. What, then, of reasoning? This, of course, belongs to the novelties gathered in. In what way would the C.I. possess reasoning which, as we know it, implies time-succession? Itself as a whole does not reason, but it may conserve reasoning as a feature of the past whose moments are now all together for it as reality *that has been made*. We shall answer this question fully when we are clear as to what is the standing of the past. In so far as the C.I. includes this past,

[1] Such as Lord Tennyson had in view.

it includes the reasoning of the finite sentients belonging to it, but it awares this reasoning directly and not by a further elaboration of conceptual thought.

On unclear thinking which labels the Universe "rational."

§ 19. The description of the Universe as "rational," "logical," "reasonable," and so forth often accompanies very unclear thinking. Only in the context of Hegelianism are we quite sure what the writer means. And Panlogism on the Hegelian scale is both frank and impressive. Unfortunately it is not true. As regards departures from Panlogism, which still term the Universe as a whole more or less "rational," we are frequently at a loss to grasp what "rational" means. The word, as James observes, carries too many meanings. The result is apt to be vague thinking in the service of a sonorous epithet. Even Bosanquet does not clear the atmosphere. He makes "rational" reality "not only of such a nature that it can be known by intelligence, but further of such a nature that it can be known and handled by *our* intelligence." [1] The trouble is that reality as "known and handled by *our* intelligence" need not itself be intelligent, according to logical standards. Thus consider the attitude of writers who hold that the relatedness of things to one another is at bottom irrational. You could take up these relations into a "rational" system of thought, into a collection of propositions *ordered according to a plan.* And you could "handle" the reality thus interpreted to practical profit. *But* this "intelligent" handling of reality would not convert retrospectively the original irrational rela-

[1] *Essentials of Logic*, p. 165.

tions into rational ones. An "intelligent" [1] system will connect, but what of the data which are connected? If you aver that *these* also are rational, you will be shortly a Panlogist back in the camp of Hegel. If you decide that they are not, you are restricting the sphere of Reason seriously indeed.

We lose nothing of worth to sentiment in dethroning "Reason."

We lose nothing in dethroning Reason. After all, it is hardly complimentary to reality on the great scale to term it "rational." Consider what reasoning, in the sole forms of it known to us, actually is. Reasoning is a fallible, eminently tentative, process, an invention the main value of which is to help *finite sentients* who want to control the world or merely to grasp it better. It profits us, indeed, but how often it fails us! Why, then, are men prone to value it so highly in philosophy? Well, there are those who wish to believe in a "rational" Ground as an alternative to agnosticism or scepticism. They desire a Universe which has an immanent purposiveness and promises well for finite sentients. It is important, we must allow, even at the call of sentiment, to be looking out for a Universe of this sort. Finite life seems a wretched thing, if it means nothing and comes to nothing. But a "rational" Ground, arid, cold, and hard, such as confronts us in the history of philosophy, brings, at the best, little of worth to sentiment and leaves the finite sentient belittled and almost ignored. Far more satisfaction awaits us in the thought of a Universe wherein glowing cosmic emotion colours the romance of the C.I. and novelty wells up through finite sentients, each of whom is unique and of value and must somehow endure.

And we gain heavily by enthroning the C.I.

[1] Note etymology again.

What we are to mean by Reason and logic henceforth.

Henceforth we shall regard "Reason" as a collective name for certain processes and results which have their seats in finite sentients striving to control, and better their grasp of, reality. Logic we can define with Bergson as the "complete set of rules that must be followed in using symbols," [1] *consistent* formal thinking being in view. But, as Dr Schiller has pointed out so admirably,[2] formal thinking is a game which must not be taken too seriously, if we wish to avoid verbalism and nonsense. Not logic, but, as Dr Schiller calls it, "psychologic," is what is wanted. Actual reasoning, we are to contend,—the reasoning which subserves purpose—is of psychological, not "logical," origin. Logic is an afterthought or afterstudy by which, on its practical side, we hope to render the processes of actual reasoning less fallible.

The C.I. is superrational, superlogical. In what way can it be said to be "reasonable."

The C.I. is not below reason and logic; it is superrational, superlogical. As creative activity, while not "reasonable" in a scholastic sense, it is "reasonable," withal, in a teleological way, in that it *fulfils the immanent purpose of reality*, to wit, the evolution of novel conscious life awaring contents in rich and unstinted variety. Conscious life, awaring such content, is its own self-sufficient purpose. There is no rigidly prefigured world-plan realisable in one supreme and final divine event. There will be a consummation, and, again, there will be further consummations, and yet again others and others in which, not an abstract cosmic "logic,"

[1] *Creative Evolution*, English translation, p. 169.

[2] See his masterly *Formal Logic*, where the traditional trivialities and verbalism of formal logic are dealt with scathingly.

but a concrete infinite imagination wells up into novelty that is without end.

On orders which are said to be "non-temporal."

§ 20. The C.I. may include forms of order, the terms of which are not related spatially or in a time-succession, and, for aught we can say, such orders may be infinitely numerous. Imagination may hold anything—improvise anything—however we finite sentients, playing with logical "laws" of contradiction, etc., may seek to limit it. But though forms of order may be non-spatial and have no successive terms, they do not escape from being "temporal" in one sense. They *endure* in the C.I., and are awared *simultaneously* one along with another, even though it be without change, and with no conceivable change, so far as *our* powers of conception are concerned. We are not to suppose that to have terms which are not successive and to be "timeless" amount to the same thing. Yet this is the extraordinary supposition which seems taken for granted in all discussions of "non-temporal orders" which hold the field. We shall be considering soon at some length the problem of space and time as orders within the content of the C.I., and our meaning in respect of endurance and simultaneity will then be clear.

The C.I. and mystical insight. A warning.

§ 21. The superrational character of the C.I. must not be made the excuse for slovenly attempts to seize it by way of mystical insight. There are would-be mystics, who resent the relational schemes whereby intellectual workers seek to understand the Universe. Undoubtedly there is no adequate grasp of the C.I. possible to one who works solely with the abstract distinctions of discursive thought. It is in

expansion into the concrete divine imagination that a perfect illumination would have to be sought. Such an illumination, comprising all distinctions and relations in an intuitive unity of feeling, would be complete. But very excellent things, as Spinoza remarked, are difficult. There are no short cuts to perfection; and he who supposes that a mere "saint" of some popular creed or an intellectual weakling, disillusioned by failure, can enter at call into the divine imagining or "joy of the Lord" must be sanguine indeed. Æons may prove too short for the preparation.

Taylor on the "besetting sin" of the mere mystic.

"The besetting sin of the mere mystic," observes A. E. Taylor, "is not so much his failure to accept the work of the mere intellect as the highest and truest type of human experience, as his tendency to satisfy his demand for the fuller union of the *what* with the *that* by reverting to the lower form of immediacy upon which intellectual reflection has not done its work, *instead of pressing on to the higher in which the effect of that work is preserved though its form is transcended.*"[1] Here lies, indeed, the pitfall, victims of which fill the annals of religion and "contemplative" lethargy. The quality of the illumination of the ordinary mystic is shown by his failure to find satisfactory answers to the great riddles which have puzzled philosophy through the centuries. He has intuited, he avers, much, but his literature condemns him; he cannot, for instance, assist the intellectual in solving the problem of causation, which, assuredly, a genuine illumination would master at once. We cannot expect light from the small fry of mysticism who belong to the rival religions, and whose

[1] *Elements of Metaphysics*, pp. 152–3. Italics mine.

"experiences" unmistakably reveal the fact.[1] But we might look for help from the greater mystics of history, and how much, in all seriousness, have we obtained ?

The mystic's "besetting sin" is a real and a very persistent one. He wants to escape the "labour of creation." But there is no short and easy way to perfect insight. Note here that, though the intellectual's relational way of thinking is not final, it brings him into ever closer intimacy with divine thought and allows him to discover differences and identities, failing grasp of which even the beatific vision itself would be sterile. Were the undeveloped mystic to expand awhile into the experience, say, of a finite god, would the privilege profit him much ? Would he not be simply dazzled and confused, mumbling to us afterwards of "ineffable" moments, but bringing back no insight of the remotest value ? A baby in a picture gallery may have very keen visual impressions, but how much of æsthetic worth will this baby carry away as compared with the instructed observer ? It is a superstition that to observe is possible without an ample measure of prior understanding. To perceive adequately on higher levels we have to bring spiritual wealth to the perception.

The ideally prepared mystic.

The ideal mystic would be an intellectual of the fully prepared philosophical sort. He alone would understand where the others, blinded by excess of light, would gape. He alone would be able to

[1] They include erotomaniacs, it would seem. *Cf.* J. H. Leuba, *Mind*, January 1905, "On the psychology of a group of Christian mystics."

translate his experiences intelligibly for the benefit of *others*. But, burning as might be his desire to reach the light, can we suppose that final success is an affair of years—or millions of years? And, short of complete expansion into the C.I., would he attain any insight which we could regard as beyond criticism, as beyond "intellectual" revision?

Mysticism, as it concerns us inquirers, is a tree which must be judged by its fruits. And so far these latter have proved much less numerous and appetising than those provided by plantations in the domain of philosophy. This situation is qualified by the fact that some of the greatest of "intellectual" philosophers have been *also mystics*, to the extent of profiting by illuminism which reveals novel horizons and yet has no assignable rational pedigree. We discussed this matter under "Intuition and Hypothesis" in the Introduction and have nothing further to add to those observations at present.

Philosophers who are also mystics.

Aspects of the C.I. 4. The C.I. in the Regard of Immanent Purpose and Cosmic Emotion

§ 22. The Cosmic Imagination, as active on the great scale, is its own *immanent* purpose or end. Some would say that it realises this end in phases of rest and creation which may alternate; just as on the minor scale there obtain in all regions of Nature oscillations "from tension to *vis viva*, from *vis viva* to tension,"[1] and in animal and

[1] Tyndall on the "Constitution of Nature." For the discussion of this point, *cf.* Part III. Chap. II., "Nature (or the Natures) began."

human sentients alternations of waking activity and repose. This speculation is worth consideration later. A belief in "unconscious purpose" has found favour in the eyes of idealists of certain schools, but has no place in our scheme of thinking. It belongs to mythology. Writers who fear that to concede the reality of conscious cosmic purpose is to concede the reality of a personal Ground and who recognise at the same time (as did Schopenhauer) that there *are* events designed "beyond expression"—these are men who have believed in "unconscious purpose." There is no call, however, for so strange a conjunction of terms.[1] The Cosmic Imagination is assuredly conscious, but it is not a mere person. And recognition of immanent purpose is not the same as belief in a manlike designer who deals with a "given" world much as a joiner deals with bits of wood.

We have no place for the belief in "unconscious purpose."

Fichte, whose "infinite activity" is not conscious but the presupposition of consciousness, believed in unconscious purpose. For him the "Absolute Ego" has to overcome a resistance set up within itself, and only in the course of striving against this obstacle does it come to know itself. This "practical" idealism, as it is called, issues in a cult of the "moral order" of the Universe. In moral action which aims at a victory over Nature—always to be accomplished and never complete—lies the supreme end. Here, then, primally unconscious life becomes at last more or less conscious in sentient individuals,

Fichte's version of "unconscious purpose."

[1] There are arrangements, *e.g.* a gas engine, which perform the work for which they were designed without consciousness. But they embody design or purpose when constructed and simply prolong this.

and, we must suggest, conscious of the futility of the purpose for which creation exists. For the "Absolute Ego" can only maintain its self-knowledge so long as the resistance within itself lasts, and is thus in the fix that the resistance has to be *at once perpetuated and overcome* with no prospect of a final satisfactory harmony. In the second place, a merely "moral ideal" is altogether too arid and abstract to be worth fighting for. A moral order of "duty for duty's sake" ought to move nobody of sane outlook. Duties that further the wider interests of yourself and other sentients are worth observing. But duties which serve only to keep an "Absolute Ego" aware of itself, through "striving," seem ridiculous. A revolt of developed sentients against such slavery were timely.

His "moral order" an absurd ideal of action.

We are not yet considering morality in full, but we seem justified at the moment in urging this. Take care of the full and rich living of individuals, and the Cosmic Imagination will take care of itself. The C.I. enjoys an imaginal life which is its own end. It is not a person and, accordingly, is not moral in the sense in which you and I and a well domesticated Newfoundland dog are labelled "moral." It is Universal Reality and does not behave in our very partial and preferential ways. Thus in the wars of its creative phase it acts inevitably both for and against a given sentient or group of sentients; owing to its universal character it cannot be wholly on the side of a limited portion of reality. It is active in all directions, is supermoral. It is present *in some manner* in all forms of sentient life. These forms, as we know, collide;

The C.I. is best termed supermoral.

yet it is with them all,[1] overruling conflict, however, in such fashion as furthers its *total* imaginal life.

Divine egoism or . . . ?

Do you suggest that we are in view of a divine egoism, submoral rather than supermoral? I am not prepared to admit that egoism is submoral; it is, on the contrary, an essential aspect of morality. However, it is no "ego," but the *total movement of creation* that is in question. And it may well be that this total movement will vindicate itself completely in its result — in a divine consummation in which even finite sentiency is not cheated or lost.

The C.I. in Purposive Creative Evolution

Imagination is essentially teleologic and it uses the achievement of one æon as a departure for that of the next. Note that Bergson, though he has not, indeed, reached the concept of the C.I., has denied most effectively that the world-order is the realisation of an eternally stereotyped plan, illusively presented in the form of time. Evolution "creates, as it goes on, not only the forms of life, but the ideas that will enable the intellect to understand it." Were reality, he writes, the outcome of a prefigured plan, it ought to show greater and greater harmony as it progresses. It does not. Again, "Nature is more and better than a plan in course of realisation. A plan is a term assigned to

Bergson on creative evolution.

[1] We have yet to understand clearly the manner in which the C.I. is "present" in the discord of Nature and its implicated sentient life. This is a vital issue, and is dealt with in Part III. at length.

a labour; it closes the future whose form it indicates. Before the evolution of life, on the contrary, the portals of the future remain wide open. It is a creation that goes on for ever in virtue of an initial movement. This movement constitutes the unity of the organised world—a prolific unity, of an infinite richness, superior to any that the intellect could dream of, for the intellect is only one of its aspects or products."[1] "Intellect," let us add, never "dreams of" nor originates anything: it is a collective name for processes and results, the driving-power in and behind which is imaginal. "Analysis" itself is only selective imagining on the spur of interest. The concept, judgment, and inference are all forms of imagining which serve the interests of sentient life.[2]

The World-Ground is not solely creative.

The making of novelty cannot cease, so far as creative eras are concerned. But all creative world-processes, we shall surmise, last for a finite time and have their consummations. In these latter creative improvisation is eclipsed by the vision of achievement, the travail of *Becoming* is swallowed up in the *Being* of successionless duration. A philosophical adventure in this quarter awaits us shortly.

Imagination, not a mere Bergsonian "Life," is at work—or play!

The power, which gives rise to these creative episodes, is not an indeterminate Bergsonian "Life," but imaginal: consciousness with a content which resembles most nearly what, in our surveys of human experience, we call imagination. Only concrete imagining can hold the detail of a World-

[1] *Creative Evolution*, English translation, p. 110.

[2] Issues to be dealt with fully in the second volume of this series.

System; only imagining *overlaps* all phenomena, such as we are acquainted with, to the required degree. Any kind of psychical activity can be derived, at any rate plausibly, from active imagination ("will," "impulse," "instinct," "memory," "perception," "conception," "reasoning," "emotional moods," etc., are cases in point); Nature itself presents no difficulty. On the other hand, no one can attempt the reverse kind of operation with any show of success. Hegel tried to exhibit everything as "disguises" of logical conception writ large, for that is really what his system means. The experiment was seen to fail as soon as the "order of concepts" was confronted seriously with the order of concrete empirical reality. You cannot derive imagination from any one of its alleged "disguises" with any show of plausibility.

The "plan" of any particular World-System.

Suppose that we were to consider the story of one of the many World-Systems—and there are, perhaps, indefinitely many—which mark creative episodes in the C.I. There is no stereotyped, unalterable plan to be realised: there will be a flood of imaginal novelty which is to multiply in all directions; a witness not to the poverty, but to the *fecundity*, of the creative IDEA. This World-System of changing aspects will contain lavish experiment or "fortuitous variation" (so-called) from the moment of the primæval appulse onward. And, because there is imaginal experiment, there will be elimination on the great scale; a process of Natural Selection which will scavenge Nature and History of the failures and monstrosities which this trial and error procedure involves.

In what manner the "plan" is foreordained—in what not.

But though there is no mere realisation of a *fixed* plan, there must be a very definite initial imagining of the field in which further creations are to occur. In the case of the making of a poem or romance the artist, however well equipped for his task, has surprises and unexpected inspirations as the work proceeds; there arise endless fresh situations, each of which requires a "solution" never before in being. Similarly in the making of the romance of a World-System, imagination the artist possesses a concrete germinal World-Idea, but the initial field imagined at once grows its crop of novelty, and each departure becomes the starting-point of further departures, all of which bring fresh reality into the Universe. On the great scale, cosmic "variation," is of this order of imaginal improvisation. An astronomical system or an oak, as we know them now, are the fruits of long experimental imagining, variations of no value being weeded out. But in this regard I must not anticipate.

In what sense the "plan" is "reasonable."

The plan is "reasonable," not in a "logical" way, but because it embodies a purpose—imagining that fulfils itself fully and richly, having a plastic being that is designful in virtue of its eternal character. It is a plan, however, that *grows*, and its last stage could no more be "deduced" from the first than a smile could be "deduced" from Hegel's category of "Being." Its growth is such as to develop imaginal life, of the type determined generally by the initial field, to the richest possible level: a level which philosophy may term "satisfactory," but which might be described in more emotional language for the present best disallowed.

Why a "world-plan" contains so much that is called "unreasonable."

Each initial World-System, present to *con*sciousness, that awares it through and through, may be treated as a single thought or subordinate minor cosmic whole. So many World-Systems, so many such single thoughts. And now a complication of the utmost importance for the understanding of many dark questions supervenes. The germinal World-System *subordinates harmoniously the content-aspects which we may call its "members"*; it is a one that is many, but *the one dominates.* But with the evolution of Nature the many come to triumph in their turn and have a free swing. Nature becomes a many that is one; *the many dominating.* And with this self-assertion of the many, Nature tends to pursue a career of its own; to bud off and break away from the parent C.I., though the rupture can never be complete. It tends to become a *more or less independent minor whole which, at the outset, is controlled by its parts,* in which parts, again, multiplicity and "looseness" prevail. This is the source of the bacchantic discords of Nature which are continued, as we know to our cost, into animal and human sentient life. Still, the wholeness or unity of Nature is never quite abolished; and with the progress of evolution it re-asserts itself more and more. The imaginal Nature *almost* breaks away and runs a course of its own—its parts *almost* break away from it and from one another,—but, despite the domination of the many, it remains a thought never quite foreign to the C.I. It is a thought like a poem or romance of my private fancy which, originated by me, subsequently develops independently of my will, but which, despite this free self-development, remains, at bottom, my possession and subject to my sway. The progress of this or that World-

The source of the bacchantic discords of Nature, and sentient life.

System includes gradual reassertion of the unity-aspect as overruling the many.[1] And the general progress of different World-Systems makes for their eventual return to harmony in the *con*sciousness of the C.I. For the all-inclusive Imaginal IDEA does not lose its thoughts, however freely they seem to develop, and, if the many must have their turn, they also fulfil, though *in their own manner*, the immanent purpose of its superior life.

"In their own manner."

Note that in these imaginal World-Systems, which almost break away from the C.I., we find the radical explanation of the dark side of reality. Each at the outset is a bacchantic imaginal power, breaking, even within itself, into multiplicity and discord. *It is imagining which has all but escaped from control and is unable to control itself.* It is, consequently, in many respects an inferno, a nightmare, containing evils which seem to pollute the Universe.

Why a World-System at the outset is, in many respects, a nightmare of imagining.

But, precisely because it originates in this way, no World-System compromises the grandeur of the Cosmic Imagination: that ocean of the infinite in which world-evolutions are mere episodes. *Conservative* harmonious Being overflows into *creative* Becoming—we have the Metaphysical Fall, of which an account will be ventured in Part III. There are born, and, as we shall see, at an inevitable price,

The C I. is not compromised by the infernos of creation.

[1] It is to this subordination of the many that Hegel refers, in theological language, when he says "we regard the world also as ruled by Divine Providence: implying that the division between the parts of the world is continually brought back, and made conformable to the unity from which it has issued" (Wallace, *Logic of Hegel*, "Doctrine of the Notion," p. 306).

minor systems at first not controlled fully by themselves, but retaining the imaginal spontaneity of their source. Hence many torments and tears, and the despair of writers attempting a Theodicy, should they be intent on discerning a "divine plan" manifest throughout *all* regions of Nature and History.

It is the "part" that revolts, so to speak, against the Whole and introduces the Fall; and the Fall, once begun, must take its course. Anon the re-subordination of the "parts" is slowly contrived—how we shall note. But this great cosmic struggle has its correspondingly great compensation. In the process by which the re-subordination is effected, is accomplished, also, the evolution and perfection of conscious individuals.

The compensation.

We shall discuss the initial stages of the re-subordination in connection with the evolution of Nature.

The C.I., also, has an "Affective" Side. On Cosmic Emotion

A merely cognitive life, devoid of an affective side, unsatisfactory.

§ 23. A merely dry, unemotional, cognitive life would be one of the most utterly undesirable things. It is a defect of our present world that the "intellectual" has often so colourless and unsentimental a soul. Well it is, of course, not to decide intellectual issues on the mere prompting of emotions; and, with the purpose of thinking accurately, it may be advisable sometimes to still emotions as much as we can. But, apart from this passing purpose, it is a blemish, and a very grave one, not to be moved

by warm emotional moods. We are to be commiserated if the exigencies of our thinking make for the starving of our affective lives.

Now, among many philosophers who suppress emotions in order to think accurately, men broken to the chill "intellectual" life, there has prevailed a tendency to credit the World-Ground with a character as arid as their own. We are familiar with the uninviting Grounds of many writers; the "Notion of notions," "Mindstuff," "Will," etc. etc., devoid of emotion. We have all, at some time or another, been too ready to believe in these creations of the study. I believed in this scarecrow kind of Ground myself, when, in the days of youth, I overrated the "dry light" of reason and the worth of its place in the Universe. The "dry," cognitive life is one to be desired, not as an end in itself, but as a means toward something else.

An ultimate Ground, devoid of emotion, a scarecrow of thought.

Our pleasures and pains cover a field extending from the relatively simple joys and pangs of the flesh which qualify organic sensations and deliverances of the special senses (tastes, smells, muscular exertion, etc.), through emotions such as disgust, surprise, fear, anger, pride, envy, ambition, pity, etc., up to religious sentiment, the intellectual and artistic sentiments, wide-ranging sympathetic feelings and the like. Our emotions contrast with passions as the passing wave contrasts with the lasting Atlantic swell; with the relatively stable or conservative side of our affective lives.[1] For

Our own affective life and its meaning.

[1] These are emotions in the narrower sense of the term. Later we use the term in a wider sense as covering all modes of the affective life of the Cosmic Imagination.

the *conservative* side of reality is represented even in this sphere of fact; passion, as Ribot observes, is "in the affective order what an imperative idea (*idée fixe*) is in the intellectual order."

We classify these modes of the affective life more or less tediously and unsatisfactorily; for the shades and complications of pleasures and pains, adjectives as they are of other content indefinitely varied in different persons and at different moments in the same person, are too numerous for the psychologist to deal with. For the purposes of metaphysics, however, we can steer clear of wearisome classifications and concentrate our attention on features common to all the modes alike.

We noted previously that pleasures mark furthered, and pains (which attend unresolved conflicts) thwarted, psychical activity. Ribot, the psychologist of the emotions, looking at the matter from the standpoint of physiological psychology, and using the word "tendencies" to cover both the physiological and the psychological aspects of the phenomena, says that the affective life exists according as tendencies are "satisfied or opposed." We have to add here that "physiological processes" carry us into the realm of those *minor sentients* which underlie the organism. The furthered and thwarted lives of those sentients are reflected in our experience. Our more crude joys and sufferings of the flesh and special senses might be said to indicate the massed affective states of those minor sentients; innumerable hosts of such existents being connected, *e.g.*, with the pleasures of muscular activity or the pain of a burn.

The central point of interest for us now is that an affective life seems to exist whenever activities, *which are always psychical*, are "satisfied or opposed," furthered or thwarted. The central point of interest.

We have already considered the Cosmic Imagination in this light (Part II. Chap. I. § 19). The C.I., as imaginal activity, must be emotional in an eminent sense. And regarded on its harmonious conservative side, as the ocean of the infinite, it is an unimpeded and surely happy activity. We cannot enter into the depths of its emotional being. Perhaps in our most "divine" moments we attain some faint measure of insight—notably in certain supernormal and rare experiences on which I will not dwell. But, in the main, we are forced to think here in a dull symbolic way. We must fall back on the phrase "the C.I. is ineffably happy," *i.e.* its happiness is such as to render predicates (which imply likeness to our experiences) absurd. If I answer the question "*What* is this happiness?" I have to reply, "It is *that*," and since the "that" is some kind of familiar human happiness, I am wasting my time. The kind of happiness affirmed will be indefinitely too petty, and also, alas, too flat. To know the cosmic happiness adequately one must live it, and that is an outlook not exactly realisable in the near future. The affective side of the C.I. regarded as an activity of restful content.

The C.I. is not active because it enjoys; it enjoys as an accompaniment of its activity. In the activity of rest, or its contemplative, conservative harmony, the ecstasy is commensurate with the activity. If we like phrases, we may speak of the "beatific vision," but nothing is conveyed thereby.

There are more things in the Universe than "vision."

The affective side of the C.I. in so far as it is manifested in creative episodes.

But what of the *creative episodes* in process which "stain the white radiance of eternity"? They may seem trifles, ripples of no moment on the ocean of the infinite. Nevertheless, they must be considered. In so far as the C.I. is active in creative evolution, it includes a variety of World-Systems along with which (if our own system is typical) go numberless evils. These systems, with their hosts of sentients, have almost broken away from the parent Imaginal IDEA—their Father in heaven—and the fact has its significance in this discussion. But they have not broken away wholly. For, still present to its consciousness, they colour it and form in their totality a novel and enthralling romance. Leibnitz compared God to the artist who "employs discoloured shades or discordant sounds to heighten the colouring or the harmony of the work of art, so that it gains in beauty through what is itself hideous." Are we to say that the perfect artist gives his World-Systems a free swing, to allow the rise, in undivine conditions, of sentients whose story throws his perfection into relief? Note that these sentients, despite the differences of their *contents*, are, in respect of being *conscious*, all the same; the same, too, as the conscious IDEA. Consciousness is the one genuine universal. At bottom the IDEA is weaving a romance for itself. This romance, too, as we shall surmise, is one of Love and has no permanent martyrs. And, awared from a central point of view, it is splendid, not the less so because it takes such dread chances and risks. It is not played or "allowed" on lines that mar the

The IDEA weaves a romance for itself.

total cosmic imaginal life, but, on the other hand, there must be no sterilising restriction of creative novelty. Hence the price of creation, if it is to flower fully, must be heavy indeed.

All finite experiences are not of cosmic value. A scavenging of reality is necessary.

We are discussing at present the IDEA. But it goes almost without saying that the sorrows of finite life have not only *cosmic* value, but are indispensable for the growth of the finite sentients themselves. It is needful, withal, to add that not all the unlovely and abominable experiences of sentient life can be disposed of in this fashion. Much, very much, of finite experience is sheerly evil and ugly and best destroyed even for memory. And we shall discuss later whether, along with a special conservation of values, there does not go also a special destruction of all which is not fit to endure and form a permanent portion of the cosmic imaginal life. In a Universe which accepts novelty, there is, perhaps, a corresponding lapse of what offends the higher cosmic life. Unlike those who believe in a Universe with an "unreal" time, we are able to make appeal to the great scavenger—change. Elimination, at need, will be complete.

The C.I. or Imaginal IDEA is not tormented by desire when it creates.

The C.I. does not suffer the pangs of desire when it creates. We finites often experience these pangs before action, because our willing is tentative, meets obstructions, and pain, accordingly, leavens our thwarted or impeded psychical life. But the IDEA imagines and the facts are so: there is no obstacle to the Becoming of a world-process regarded *as a whole*. The plastic activity concerned is, to this extent, sheerly joyful. Pessimism deals with the story of the finite sentients *within* the world-

whole which is being evolved. These sentients, however, colour the wider cosmic life in which they float and contribute, as already suggested, to diversify and enrich the play of creation.

A creative era, involving billions of World-Systems, more or less cut off from one another, is an incident only in the plastic life of the IDEA.

I have used the term "play," and the word seems, indeed, strangely apposite. The world is a game which imagination plays with itself. The IDEA is no solemn "thinking of thought," prototype of a grim, dull professor who, dried up out of all semblance to manhood, mumbles logical lore; no ascetic power looking askance on joys which it has itself created. The IDEA is an artist whose poem, in so far as he is not enjoying accomplished beauty, but creates—is evolution. He creates, too, as one who must leave no source of inspiration untapped. And his work is complicated by the world-imagining which, as we saw, runs amok. A thought, at once splendid and fearsome, concerns what a world, woven in this way by imagination, might hold. We, again, like the supreme artist, ought to quit ourselves in our adventures in the spirit of sport. Play being basic, and "duty," "work," [1] and "sacrifice" limitations of our being, of value only for desirable ends not otherwise to be reached, an ethic of veritable freedom seems in view. We, too, ought to live playfully as little hampered by

The IDEA as an artist at play.

[1] "Work" may be defined as more or less disagreeable action which is a means toward something else. "Work," so-called, which is pleasant and valued for its own sake, approximates to play.

masters, authorities, and traditions as circumstances allow.

THE C.I. AND BEAUTY

The beautiful and its literature.

§ 24. We have made mention of "Beauty," a word which is used ordinarily with an extreme vagueness of meaning, and of which no definition yet attempted has won general assent.[1] The literature of the subject is simply bewildering, and tiresome pedants run amok and disagree here at their worst. It is with some diffidence that we submit yet another working definition of our own. But clear and honest thinking forbids evasion of a difficulty, and, accordingly, we will anticipate a little and take the plunge.

The meaning of the label "beautiful."

"Beauty" is not a distinct kind of pleasure nor is it some universal homogeneous existent of which objects, called "beautiful," partake. I seem to label "beautiful" any object of sense or fancy which I enjoy in a certain way. *Any content or content-complex is "beautiful" if I can* REST *in it with a joy satisfied within the limits of the complex.*[2] This definition covers the whole range of the "beautiful," from its most lowly phases in crude animal sensation (*e.g.* the æsthetic enjoyment of a glass of port) up to experiences of Turner's pictures, sunsets, stones of Venice, symphonies, statuary, lovely women, the drama, cosmic order, and the rest.

[1] This is the burden of a long lamentation in Tolstoi's *What is Art?*

[2] "Associations," such as contribute so lavishly to the word-witchery of poetry, greatest of the arts, fall, of course, within the "content-complex."

The supreme standard of the beautiful.

The supreme standard of the beautiful, interpreted on these lines, is the *activity of rest* wherein the C.I. awares perfect and, therefore, unchanging content. Finite visions of the "beautiful" lie indefinitely below this level of awaring. These finite æsthetic experiences are petty in scope. They are vitiated by the ugly aspects of the imperfect things awared. Even the human body, which Hegel thinks the most beautiful revelation of the Absolute to sense, is squalid and ugly in part. They suffer, also, from the fact that the things cannot ordinarily be enjoyed *at a stroke*. Thus we have all but lost the beginning of a Beethoven symphony when we are hearing its close; our poor memory not sufficiently assisting perception. Similarly in cases of artistic achievements, like "Paradise Lost," the "Iliad," or even triumphs of architecture and sculpture, the power to aware the elements of the complex all together is sadly lacking. Thus "activity of rest" in the beautiful, save on the lower levels of sense, is denied us. The beautiful object is imperfect and, further, the experience is sapped and spoilt by the too insistent flowing of time. It results that finite experiences of "beauty," as of "truth," are makeshifts; at their best suggestive only of something better in a region removed from mortal ken. There is no sure consolation in such experiences for one in revolt against an unsatisfactory world.[1]

The defects of finite æsthetic experience.

[1] The "spontaneity" of human Art, reaching beyond the level of the beautiful attained in Nature, is of obvious moment to our main hypothesis and must be treated, accordingly, in our volume on the individual. In Art we exercise a playful freedom which is creative in manners obvious even to the materialist.

Divine or Cosmic Love

§ 25. Hegel identified God with Truth. There are those who would identify Him seemingly with Beauty. I repeat the statement of Ravaisson already cited, "Le monde entier est l'œuvre d'une beauté absolue, qui n'est la cause des choses que par l'amour qu'elle met en elles." By this hangs a mysticism of abstractions. Cosmic Beauty is not by itself the ultimate Ground. It is a side of the Imaginal Idea in so far as its contents are a perfectly satisfying delight, meet for the conscious "activity of rest." But note that this perfectly satisfying delight is, also, Love; the all-embracing Cosmic Love which crowns the height of feeling. Perfect contents (whether conscious in their own right, in and for themselves, *i.e.* individuals or contents that are merely known, as a poem is known by us) are the joy that Love seeks to *conserve* and embrace. It is only, however, the "activity of rest" which includes perfection. Sentients and things immersed in a time-process, unfit, as their very changes show, to endure, are, in theological language, all in the region of "Wrath."

The Cosmic Beauty which is also Love—the supreme emotional reality.

In an emotional regard Cosmic Love is the most glorious reality in the Universe. But it does not, of itself and from itself, give rise to evolution. That is the achievement of the C.I., the Imaginal Idea, whose content has the side of Cosmic Beauty and Love, but is, also, assuredly very much more.

CHAPTER III

ON CERTAIN IMPORTANT ASPECTS OF THE C.I. CONSIDERED SEPARATELY (*continued*)

5. The C.I., Time and Space

Time and space are only aspects of the content of the C.I.

§ 1. The Cosmic Imagination, by supposition, does not exist "in" time and space. It exhausts reality; any alleged "other" existence is, in truth, part of its content, *i.e.* part of that which it awares. Time and space are to be understood as, in some manner, aspects of this content. Modes in which this content is present to the C.I. are now interesting us.

We have urged, in our advocacy of idealistic realism, that the content of the C.I. can be viewed as well in the way proper to idealism as in that proper to realism. Thus this content can be regarded as of one character and tissue with what we all aware intimately as our "percepts" and "ideas." This is an idealistic attitude. On the other hand, the content is no mere sum of "states" or modifications *of* consciousness, but is rather present *to* it. *Con*sciousness, which is active, is the C.I. viewed as a continuum. It is the identity in which the manifold or differences of content are *co*-awared and in virtue of which they are more than

discrete existents. This content is as "real" as is consciousness. Thus you can regard the C.I. in an idealistic or a realistic vein, as you like, subject to the admission that things (while not your experience in the subjective meaning of the word) are always such that they are or can be experi*enced* or awared. It is needful to recall these considerations in view of what is to follow. We are not committed to an adventure which aims at a "subjectivist" or Kantian interpretation of time and space.

The problems of time and space compel a philosophy to declare itself.

Time and space implicate the general topic of "relations," as yet insufficiently treated. But the importance which they wear in the eyes of a critic, as forcing a philosophy to declare itself, justifies a preliminary discussion of them apart. They compel, indeed, statements so revelatory of a philosophical standpoint that, after considering them, one has grasped the very spirit of the belief concerned. Consider, for instance, what the *Durée Réelle* has meant for Bergsonism.

TIME

We will begin with a preliminary treatment of time.

Mention has been made of the C.I. (or, as we have also called it, the Imaginal IDEA or Ground) as active in two main ways, to wit, as contemplative or conservative and as creative or evolutionary. Many problems, as yet unsolved, are raised by this view. But to facilitate the consideration of time, let us suppose the C.I. in a *complete* rest-phase,

The ἐνέργεια ἀκινησίας again.

i.e. in activity which is rest in respect of its content which does not change. What standing, if any, has time in the C.I. as statically active in this manner? If we look at the problem in this way, we shall reach our solution quite smoothly.

"Timelessness" is a fiction.

We shall commence by rejecting outright the fiction of "timelessness," criticisms of which have been suggested already (Part II. Chap I. § 21). "Timelessness" is a Command-Concept (Part I. Chap. II. § 4) to which there is *no answering experience.*

The aspects of time. Bare time, devoid of a filling, merely a human invention.

The main aspects of time as actually perceived and fancied by us finites are duration, change, and (let it not be overlooked as is customary) simultaneity. More accurately, there are contents which we aware as enduring or lasting, existing one after the other and existing at the same time. Observe that, in these experiences, the reality awared is never bare time, but has always a filling of protean stuff —colours, tastes, pleasures, pains, resolutions, geometrical lines, verbal symbols of abstract reasoning or what not—which is said to be determined in time. *Bare* time is never "intuited" as an "infinite necessary continuum" according to an old philosophical superstition. Perception and fancy show us this filling and its manner of appearing. The popular and the mathematical-conceptual inventions about an entity "time" are subsequent to first perceptions and fancies; and are a novel addition to experience as it came originally. We must not allow these human inventions to influence the account of *time-content* as it obtains on a level where conceptions are not required.

The C.I. is not "in," nor does it aware, an abstract form or entity "time": it awares filled time.[1]

This filling, as present to the static or conservative activity of the C.I., is not timeless but *endures*, is awared without suffering change. We are not, therefore, concerned here with duration in Bergson's sense of the term, which means the continuous flowing of a *changing* psychical reality which creates.[2] The herald of Bergson's "Durée" was Royer-Collard, the populariser of the Scottish philosophy in France. He notes, with a side glance at Reid, duration as the presupposition of succession and bases our concept of it on experience of continuous identity which implies our *continuous activity*. But, however heralded, Bergson's *Durée Réelle* is not immediately relevant. For we are discussing at present, not duration as it may characterise an order of *changeful creation*, but duration as we are now conceiving it, to wit, as content which is awared *without change*, which endures, not indeed "timelessly" but without alteration, for the consciousness of the C.I.

The content of the C.I., conceived as static, is not "timeless"; it endures.

This is not the *Durée Réelle* discussed by Bergson.

This duration, of course, has (like Bergson's)

[1] We are ignoring here the finite sentients which the C.I. includes. Of course, in so far as it includes them, it includes their conceptual inventions. But this is another story.

[2] "Pure duration is the form which the succession of our conscious states assumes when our ego lets itself *live*, when it refrains from separating its present state from former states . . . nor need it forget its former states: it is enough that, in recalling these states, it does not set them alongside its actual state as one point alongside another, but forms both the past and the present states into an organic whole" (*Time and Free Will*, Eng. trans., p. 100).

How consciousness, as allied with content, is the source of the fundamental form of time.

"heterogeneous moments" of content which "interpenetrate"; this is to say that the continuity of the C.I., which is *con*sciousness, overrules and includes a manifold content. The C.I. is alike one and many, but with unity dominant. And now note the first reading of the time-riddle. These *enduring* contents are *together*—but only through the *con*sciousness in which they are *co*-awared. They endure simultaneously, because their plurality is grasped by the continuity or consciousness of the C.I. Consciousness is, to this extent, the source of the fundamental form of time: a simultaneity or togetherness of contents that simply endure. More briefly, the grasp of plural contents by *con*sciousness *is* static time.

Static time and time-succession.

Static time is thus a manner in which contents are awared by the C.I. But this is not the only manner of the time sort in which contents can be awared. The time-order of *changeless simultaneity* belongs to the activity of the C.I., considered apart from creative episodes. We have now to consider another kind of time-order, that of *succession*. There will be a certain continuity at the worst even here, for creation, despite the bacchantic discords of the World-Systems which almost break away from their ground (Part II. Chap. II. § 22), still takes place within the C.I. Shall we find here Bergson's real duration as "that in which each form flows out of previous forms, while adding to them something new, and is explained by them as much as it explains them"? [1] We shall find that creative imagining is ever giving birth to such new forms, but we shall place this changeful activity within the wider life

Bergson's real duration and imaginal creation.

[1] See *Creative Evolution*, Eng. trans., pp. 382–3.

of the C.I. which can create, but also not create, the new. The Universe seems not wholly, nor necessarily, creative. Imagining is freedom, not an enforced altering of reality which can never show a pause. And Bergson's further belief that creative change has no "steps," irresolvable into changes, is one which we shall be unable to endorse.

On the Reality and Meaning of Time-Succession

§ 2. We shall attempt to show later that time-simultaneity is the stem from which time-succession and co-existence (space) alike proceed, being first-born among inventions thrown off by the C.I. in the process of creation or evolution as it is more usually termed to-day. But we are dealing now only with certain separately regarded aspects of the C.I. An account of the connexion of these three "forms," *i.e.* manners of appearing of content, will be deferred until the evolution of Nature is discussed.

It is customary to overlook or neglect seriously the aspects of time as simultaneity and changeless duration and to fix attention mainly on time as change, as what Mill describes as "an indefinite succession of successions unequal in rapidity." [1] The incompleteness and ragged edges of these vanishing "successions" have annoyed philosophers from the days of the Greeks onward. Just consider what a mere fragment of the Universe swirls through my "specious present"; a wretched *few seconds* of clearly intuited fact! There is a strong temptation to get rid somehow in theory of these vanishing

[1] *Examination of Sir W. Hamilton's Philosophy*, p. 253.

successions and to assert that reality lies not in them, but in a superior Power, itself above successions and only *seeming* to appear in these from our finite and partial point of view.

Spinoza and the revolt against time-succession.

Spinoza did much in this way for modern and especially German and German-inspired British and American thought. In the words of Erdmann, "Averroes . . . had made the philosopher take his stand in the heart of eternity, where before and after completely disappear, and where all that is possible is regarded as already actual. Spinoza follows him almost literally in demanding that the philosopher should view everything *sub specie aeternitatis, i.e.* in perfect freedom from the limits of time. . . . This naturally implies that he views everything *simul, i.e.* without a real, and in merely a logical, succession. Accordingly, the starting-point of his philosophy is not the creator of the world, not even the fundamental cause of all things, but the logical presupposition of all that exists,—that in virtue of which alone everything else can become an object of thought and which itself does not require for its conception the antecedent conception of anything else. This is the only meaning of his *causa sui*."

The post-Kantian rationalists and even Schopenhauer attack the reality of time-succession.

Kant's attitude, again, denies succession to "things-in-themselves." The post-Kantian rationalists and even Schopenhauer continue the attack on the reality of succession, but the student is often misled by the constant harping on "progress," "labour of the Idea," "evolution," etc., which accompanies the attack. The Universe, according to Hegel, is always "accomplishing itself." This pronouncement seems to admit the reality of

time-succession. *But* Hegel avers, also, that the Universe is "accomplished," and this attitude deprives the first statement of genuine value. The upshot has been to associate an important wing of idealistic thought with the denial of the reality of time-succession.

This denial has been supported by insistence on the "contradictory" character of time-succession. But, as we shall see shortly, the so-called "law" of contradiction must not be used too freely in metaphysics or it will break in our hands.

Bosanquet's view.

Bosanquet considers that time-succession is "not a form which profoundly exhibits the unity of things," and holds that space and succession alike presuppose "a degree of unity which would annihilate them if it either were completed or reduced to zero." [1] It is the case that time-succession occurs just in that domain of reality, *where the many, as we saw, conflict and have their free swing* (Part II. Chap. II. § 22). And it is probable that eventually the "specious" present known to finite sentients will pass away with the *recovery* of the "genuine" present. If so, the incomplete unity of a succession of vanishing successions, with their differences so external to one another, will disappear. But the reality of the successions, *as occurring now*, cannot be impeached in view of what has not yet come to pass. These successions belong to the stage in which new achievements of the C.I. are being accomplished. They constitute a departure, nay, a *descent*, as we admit readily, from the "activity of rest" with its unbroken harmony and fulness.

[1] *Logic*, vol. i. p. 273.

The descent, however, is part of an immanent developing purpose, and the function of time-succession as vital to this latter may be expressed thus :—

Time-succession is the FORM OF CREATION and belongs to the reality of an imaginal Universe.

Time-succession is the FORM OF CREATION—of that imaginal cosmic activity by which new reality is *being made*. It falls, therefore, with perfect naturalness into a scheme such as ours. Imagination being real as the foundation of things, its mode of self-activity is real as well. Thus empirical work-aday testimony to the facts of time-lapse and change is once and for all confirmed. The world-principle is such that it reveals its reality in this change. An eternally fixed imagination would be onesided and quite absurd !

Thus the belief in the C.I. implies, further, that time-successions are real—as real as that Ultimate Reality itself. This reality of succession is what the plain man takes for granted and what cultivated opinion need no longer contest.[1]

To think away time-succession is, therefore, to grow difficulties. Illustrations showing this to be the case.

Time-succession being the "Form of Creation," an attempt to think it away would seem bound to grow difficulties. And this is the case. Thus, as Carveth Read points out, if time is unreal, "the progress of investigation ought to have led to a static instead of a more and more dynamic view of Nature, by which we seek in laws *of change* the explanation even of what seems the least changeable." [2] We might add that these "*laws* of change" which some

[1] Thus A. E. Taylor's "perhaps insoluble problem why succession in time should be a feature of experience" (*Elements of Metaphysics*, p. 164) dismays us no longer.

[2] *Metaphysics of Nature*, p. 277.

regard as static—as frozen uniformities of causation—have themselves, perchance, only terminable careers, changing slowly as so many relatively stable *habits* of behaviour which interacting Nature-complexes present. Static categories will not allow us to follow the facts of experience and so to live practically in this sublunary world at all. And they will not enable us, as philosophers and men of science, even to think.

H. A. Reyburn urges that our actual workaday experiences derive their significance from the fact that one moment in a time-succession is *not* with another, nay, that the very "unity of interest," on which so much stress has been laid, may depend on this "self-externality" of moments. One sees this well in games of skill. Even in works of art, *e.g.* Othello, the character of the content demands time-externality.[1] "There is no escape from it in the drama, and none in real life. The 'not-yet' and the 'no more' consciousness are essential; most of our plans depend upon them, and if a merely timeless order is substituted for them, our purposes become unmeaning. The aspect of succession is not merely a hindrance to totality, it may be a means to it. And any conception of the Absolute which ignores this leaves out much of the meaning of life." [2]

It has been suggested that, if time-succession is unreal, this unreal show may not have the same

[1] The death of Desdemona is clearly conditioned by this. She would not have been killed, if Othello had known sooner about Iago's schemes.

[2] *Mind*, October 1913, "Idealism and the Reality of Time."

On the view that there may be different directions of time-succession.

direction for all kinds of sentients. Thus in my experience the starting-handle of the motor-car has to be turned before the engine begins to work, and the clutch has to be engaged before I can visit my friend a mile away. Speaking popularly, I am moving towards a future—the visit—through a "specious" present from a point which is referred to the past. The suggestion is that there may be sentients, unknown to us, who aware this series of events in the reverse direction; for whom, *e.g.*, the visit may precede the starting of the car. In this sort of experience a child would precede the mating of its mother and a biography the life of its subject. Any number of directions of succession have been considered possible, if finite sentients, with their unreal time-successions, are merely phenomenalising a timeless order.

These are baseless fancies.

There is no evidence, however, in favour of these directions any more than there is in support of the belief in a "timeless" order; and we may dismiss them as baseless fancies, realisable in a *mad* world, but not in one which fulfils immanent purpose. Time-succession as *Form of Creation* points only in one direction, and that direction is irreversible. And here we must cite an admirable remark of Bergson's. "The more I consider this point, the more it seems to me that, if the future is bound to *succeed* the present instead of being given alongside of it, it is because the future is not altogether determined at the present moment, and that if the time taken up by this succession is something otner than a number, if it has for the consciousness that is installed in it absolute value and reality, it is because there is unceasingly being created in it . . . some-

Bergson again.

thing unforeseeable and new." [1] The new, let us urge, is an *imaginal* creation which grows out of older content as a play of Shakespeare grows out of his reading of musty stories, chronicles, or Plutarch. The musty stories do not explain fully the ultimate results, say Hamlet or the Merchant of Venice, but they determine, nevertheless, the date of these creative works as, at any rate, later than themselves.

Rider of the imaginal hypothesis.

We observe, accordingly, that our imaginal hypothesis abolishes the call for possible competing directions of succession. And, incidentally, it explains—what the hypothesis of the unreality of succession leaves bewilderingly dark—why my "specious" present is datable, as these lines are being written, at 1.30 P.M. August 27, 1915. Why in a Universe, in which there is no flowing, should a "specious" present comprise this or that portion of cosmic content rather than another? Why the *seeming* of passage along a "timeless" order at all? For passage itself is a series of events and, unless somehow explained away, itself reinstates time-succession.

Why a *seeming* of passage along a "timeless" order?

To such shifts are we reduced when trying to get rid of the empirical fact that we are living in a world of real change. This perversity which attacks what is experienced in favour of what no one has ever experienced—the "timeless" which does not even endure—belongs to philosophical verbalism, to the taking of a Command-Concept (Part I. Chap. II. § 4) too seriously.

[1] *Creative Evolution*, pp. 358–9.

Time as a "Corruption of Eternity"

§ 3. Time-succession does not show unity in its perfect form; it obtains, indeed, in the sphere where the many almost break away from their ground. It is a witness, nevertheless, to the fecundity of the C.I. which overflows, so to speak, into creation in virtue of its infinity, which belief in a "complete and finished" Absolute would disallow.

Contents occurring one after the other mark undeniably a descent from that level of changeless Being which is enjoyed as a "*totum simul*" by the contemplative or conservative Idea. We have to say with Dr F. C. S. Schiller, "Time [succession] must be called a Corruption of Eternity, just as Becoming is a Corruption of Being. . . . Time is but the measure of the impermanence of the imperfect."[1] But there is another side even to this sort of statement. That which is a descent in one regard is, also, an ascent, so far as the rise and development of finite sentients are concerned. And Reality *in the making*, imperfect as it is at the outset and even abominable in the detail as known by *us*, is, doubtless, a superb process as seen whole from a central point of view. The vindication of a World-System, however, cannot be found in any given stage of its making. It will be furnished by the character of its final form *as made*.

The "Now" or "Specious" Present of Finite Sentients

§ 4. The *directly intuited* duration which is our present, strictly so-called, or the "now," is com-

[1] *Riddles of the Sphinx*, p. 257.

plex. It has a span of not more than a few seconds; and yet in this narrow field there must show, not only the momentary incoming future and the momentary outgoing past, but also that vast *represented* future which is not yet in being and that vast *represented* past which has ceased (for the direct knowledge of finite sentients) to be. If, in this intuited duration, the present and the past were not somehow together, we should be utterly helpless and ridiculous beings.

This present, which has been called most aptly "specious," is like the circle of light at the cinema show in which the pictures are always changing and mean so much more than they bring directly to sense. And, like the circle of light which abides, while the pictures change, the "specious" present maintains itself in the very flow of its vanishing contents.

Note that in the "specious" present the different "terms," or distinguishable aspects, of a *succession* appear together in one conscious grasp or *simultaneously*. Glance at a revolving bicycle-wheel and you have a salient instance in view. Thus, to a limited extent, in our directly awared sensible life, the present and the past actually meet. The future cannot be said to meet the present quite in the same way; it is always represented or forestalled by our fancy rather than actually presented. The future is reality which is *being made* and the past is reality *made*. This succession, of which the terms are grasped simultaneously, might be called "contradictory," but, after all, it is an experience. The label you deign to attach to it matters little.

Continuity and the "specious" present.

Of course the continuity, which we have already discussed, is presupposed by any and every succession as awared by a finite being. It would not be sufficient to explain this continuity as due to "relatively permanent" contents; over against which the fleeting contents come and go. The "relatively permanent" contents, themselves analysable into pulses of like content supplied from instant to instant (as in the "coenaesthesis"), are not the source of continuity, but presuppose it. The true explanation of the continuity of the "specious" present goes deeper.

It is needful to recur to that genuine present of changeless, simultaneous contents, from which the "specious" present of us finite sentients is a *fall*. In the former the contents are grasped together because *co*-awared; *con*sciousness is the bedrock of *con*tinuity, is the activity that "holds together"; only thus are the external and internal relations of "terms" possible at all. This present is genuine—a now not infected by lapse. The "specious" present, on the other hand, is a very limited now which "presents" what is elusive and ceaselessly fading into the past. And this ever vanishing content has to mean things, past and future, which are not themselves directly present at all. The corruption of eternity, to make use of Dr Schiller's expression, is obvious.

The genuine present survives in a manner even in the "specious" present.

We are to try to trace shortly *how* this "corruption" takes place, but, for the moment, we will take it for granted. Note, meanwhile, that the "corruption," while advanced, is never complete. The genuine present, as it were, still shines dimly

through the "specious" present. The successive terms, to a limited extent, remain also simultaneous. If they did not, the "specious" present would vanish. *Con*sciousness, the activity that "holds together" and is *con*tinuity, has not deserted *con*tent, despite the plunge into change. It will be found that the basic aspects of reality, consciousness and content, never fall completely apart.

The "duration" of the genuine present, of the "activity of rest," is thus corrupted in time-succession, in the "Form of Creation." The changing contents, in this regard, are decisive. Our simplest intuited time-experience has to comprise past, present and, in a manner, future instants, which we refer to "different times." But *the basic togetherness* of these changing contents shows that the corruption is incomplete.

The compromise.

Changing qualitative *contents* determine the answers to the questions—(1) Is the time-process infinite or finite? and (2) are its instants infinitely divisible or not? There are limits to any and every aspect of quality in any given World-System or process of creative evolution. The C.I., indeed, is infinite; it only overflows, as it were, into *this* or *that* World-System which is limited in all respects, just because it is merely *this* or *that*. Our own World-System, as we shall see, had a beginning and will probably have an end. The contents involved in this process began to change, and they will, eventually, cease to change. These contents, and not the mere conceptual prolongation of time forward and backward, settle the issue. Similarly the contents decide the issue as to the infinite or finite

(1) Is the time-process infinite or finite? (2) Are its instants infinitely divisible or not?

Merely conceptual treatments of time in the abstract are futile.

divisibility of the instants of time. We do not require a conceptual dividing and redividing which can go on as long as men have the breath to talk or ink to make marks on paper.[1] This kind of dividing is too aloof from reality. An instant is a brief qualitative *content*, *e.g.* a prick of pain, a lightning flash, a sound, regarded in its aspect as enduring; some such contents endure longer than others, but all endure more or less. Each minimal bit of content is a duration which echoes, in a world of change, distantly but still audibly, the "uncorrupted" cosmic duration in which there is no lapse or change.[2] Each minimal time-content lasts a while without alteration before yielding to change. And when it changes, it changes with spurts of novelty. We have here the reality of those discrete "steps of change," for which James contended as against the view that change is infinitely graded. Time, the concept,

[1] In the time-flow, writes J. E. Boodin in *Mind*, "the more permanent contents furnish the background upon which the fleeting ones appear and disappear. Some of the latter observe a certain rhythm. In the case of the earth-clock and our artificial time-pieces based upon it, we have socialised this rhythm, relative though it is in the end to the process. Then we use this rhythm to measure the enduring contents. . . . Having invented intervals we can divide these at will, even to infinity. *We then invert the process and imagine that the contents run through our artificial divisions.*"

[2] Reid, dealing with human psychology, has a suggestive passage relative to the view that the idea of duration does not presuppose, of necessity, succession. ". . . every elementary part of duration must have duration, as every elementary part of extension must have extension. Now it must be observed that in these elements of duration, or simple intervals of successive ideas, there is no succession of ideas, yet we must conceive them to have duration, whence we may conclude with certainty that *there is a conception of duration where there is no succession of ideas in the mind*" (*Intellectual Powers*, Essay III. chap. v.).

we allow, is indefinitely divisible; but not time-*content*, *e.g.* a colour or a pain; the amount of discoverable sensible differences in these limiting research. You cannot divide concrete time beyond the point where distinguishable quality-aspects are to be found.

"Steps of change."

The "steps of change" implied by any concrete time-succession are finite in number. We cannot, it is true, verify this statement thoroughly throughout the regions to which it applies. We perceive now in ways which do not require us to be aware of all the details of things and, as we shall suggest later, "confusedly."[1] But we can infer its truth (1) from the finite general character of any one particular World-System, and (2) from the consideration that, but for numerically finite steps of change, there could be no experience such as we actually enjoy. *Infinitum in actu pertransiri nequit*; *e.g.* a colour experience, which consisted of infinitely graded changes, could no more be lived through in two seconds than its gradations of change could be counted in the same time or any time. Nature, if it had been designed with a causal dynamic of infinitely numerous transitions, would still be trying to begin.

Cosmic Imagining and "steps of change."

There is, further, (3) the character of imagining of which we must take account. Cosmic imaginal creation, the changes in which *are* succession, proceeds, we may surmise, by spurts and steps of novelty, *being comparable in this respect with our own imaginal life.* The novelty is *never drawn entirely out of its "antecedents"* any more than Shakespeare's

[1] Though not quite in the sense emphasised by Leibnitz.

plays were drawn out of his studies of old yarns, chronicles, or Plutarch. Much, most, of the vital content is invented, superadded, original. There is no evidence whatever in support of the belief in infinitely graded transitions. And we see now that such transitions would be of no value in a process which is not the mere unrolling of reality, but its making. Imaginal activity in creating always makes leaps (*semper facit saltum*).

In what the true continuity of change consists.

The true continuity of change lies not in infinitely-graded transitions, but in its being present to a cosmic *con*sciousness which holds together discrete "steps of change" just as well as anything else. But we are to return to this topic under "causation."

The Past

§ 5. The future is not somehow and somewhere completely ready and flowing towards "us"—it is *being made* and in part, of course, by the very process of our thinking about it.[1] Reality as *made* swirls into the past; in remembering we possess only fragmentary representations of it, often insufficient to guide our thinking, theoretic and practical.[2] Is this *made reality* preserved in any manner, and is it active or inactive as preserved? Bergson, who has dealt with the metaphysics of the "past," considers

Bergson on the past.

[1] Thus Carlyle on the political, etc., future. "The future is nothing but the 'realised ideal' of the people." But in this realisation are found great surprises.

[2] There is failure here, of course, as almost everywhere in the time-process. Much that is unrepresented would be useful to us. Much that is represented is noxious, as *e.g.* unwanted memories which make for the degradation of our lives. The "diseases of memory" require no comment.

that "as the past grows without ceasing, so also there is no limit to its preservation"; as regards its action, however, he speaks, as so often, in two voices. In one work "the past is essentially that which acts no longer." [1] On the other hand, we are told elsewhere that the past acts very effectively indeed, my past *e.g.* being condensed into my character and pressing ceaselessly on the portals of the present. "It is with our entire past, including the original bent of our soul, that we desire, will, and act." [2] It seems obvious that my "past," in so far as it is embodied in the present, is active; but in this case can it be said to be "past" at all? We are discussing, however, a much larger issue than this. We are asking what is the standing of *made reality as a whole* when it disappears from direct human experience? Is there a "cosmic memory" in which this made reality is preserved just as it occurred originally, my own and other sentients' past experiences being part of this reality? If such a conservative reality exists, observe in passing, it cannot be inactive. Nothing, which *is*, is inactive, whether its contents are suffering change or not.

Is there a "cosmic memory"?

Now, if with certain believers in the "flux" you conceive reality as *entirely* gathered up in the *changing present*, you disallow a stable "cosmic memory" in which made reality could be preserved immune from change. But the C.I., we contend, merely overflows into changeful Becoming. It provides this conservative or static side, aloof from the storms of change, in what we have called the

You cannot find room for the preservation of the past if you identify reality with the "flux" or time-flow.

[1] *Matter and Memory*, Eng. trans., p. 74.

[2] *Creative Evolution*, Eng. trans., p. 6.

"activity of rest." The made reality of the world-process, after its creation in which all finite sentients play their parts, "*passes*," perhaps, like a romance still incomplete, into the stable conservative life of the C.I. The artist *creates* with a view to *contemplating* his work. What we call "cosmic memory" is on the conservative or contemplative side of imaginal activity which must not be conceived as "gathered-up" wholly in the specious present of creative change.

We see now how important it is to think clearly in this discussion. We must distinguish between (1) the so-called past which is said to be "in" the specious present, as the past efforts of studious youth persist in the conscious competence of the thinker, (2) the so-called past which is said to be embodied in a new form in this present, although not consciously remembered, (3) definite memories *of* or *about* the past, and (4) the vanished past itself. No. (4) is never recalled, but only "represented" or *re*-imagined in our memories; it has "*passed*" beyond mortal ken into the domain of *made reality*. That which has "*passed*" in this way is the true past ("passed"). Since we have to represent it and cannot actually relive it, we tend to falsify it. Thus we often recall miseries and struggles that have lost their sting. But the actual past, genuinely relived in its detail, would be just as painful as ever; a series of directly-felt experiences which would possess their original colouring of pain.

The past as what has "*passed*" into the stable or conservative side of Cosmic Imagining.

The vanished past ("passed" into the stable cosmic imagination, which answers to our own relatively stable reproductive imagination) cannot be

"present" as a "past" to the cosmic *con*sciousness. It exists in a genuine present wherein the successive are also together.[1] Meanwhile the *making* of fresh reality goes on ceaselessly; it is only the *made* reality which the C.I. possesses as a "*totum simul.*" Time-succession is not, as we saw, unreal. On the contrary, it is the *Form of Creation*, as real as any form of conservative imaginal life. The *making* of reality and the grasp of reality *as made* refer us to two real sides of the life of the C.I.; and both must be borne in mind if we are to understand the time-complication aright.

It remains uncertain, of course, whether the vanished past—the *made reality* which has "*passed*" beyond mortal ken—has been made once and for all. In one sense, indeed, the past cannot be altered. "The Gods themselves," Pindar tells us, "cannot annihilate the action that is done." I slew Caesar. The mere lapse of time cannot obliterate the fact. On the other hand, in an *Imaginal* Universe, made reality is not a final achievement, but might be *re-made*, and what bounds can we set to novelty in this direction? Nay, the *entire made reality*, which we call the "vanished past" of a world-process, might disappear and leave not a rack behind. No past is to foul the radiance of eternity. The C.I., in its creative play, hardly tolerates for ever failure on the great scale. Hence made reality might call for partial remaking or even suppression—such a situation, in fact, is in accord with the imaginal hypothesis and is conceived without difficulty. Suppose now that a past was quite obliterated from the

Is the past alterable?

[1] They are together on a small scale, as we saw, even in my perception of a revolving wheel.

content of the C.I.; not a memory being left to finite sentients of what had befallen them in it. "Actions done" in that past would vanish and Pindar's saying would fail to apply to the case. Idle to urge that "I did something once in a world of which I cannot even say that it existed." I should have no motive for thinking about the lost world; no *point d'appui* whatever for puzzled meditation. The past that does not exist for the C.I. or for some finite memory has vanished utterly and my action with it.

It is important, accordingly, to allow for the extent to which, in an *Imaginal Universe*, the past is susceptible of alteration. And there are hideous facts in life which ought to make us glad that pasts can be altered or even expunged. Anyhow, let us note that the past has no inherent power which could cloud for ever the possibilities of a radiant future. The C.I., which makes and remakes reality, is at the mercy of nothing that occurs or has occurred in its Universe. Contrast its plastic content with the rock-like fixity of reality as interpreted by the Absolutist, Indian, British, German, whose "timeless" Absolute (whether called Reason, God, or what not matters little) is powerless to change its content. Look around at what life actually contains; and you will realise that a World-Ground, which is thoroughly satisfactory in an emotional regard, must be competent to revise its "phenomena." Unsatisfactory beyond hope is the "timeless" infinite which accepts the whole round of happenings, fair and foul, as its "manifestations" which cannot be brought to nought.

Artistic triumphs, in our human imaginal efforts, imply casting much to the heap. Is it otherwise on the great scale ?

The creative process, then, may include artistry even more exacting than we had allowed for at first. The romance of Becoming may require extensive correction even in the proofs. Meanwhile the general drift of change is toward the *recovery* of the changeless genuine present. And the plunge into time-succession, with all its imperfections, will not have been for nought. A harvest of sentient individuals will have been gathered. There will persist all the values of the process ; as made reality in which sheer discords and ugliness no longer appear.

The recovery of the genuine present.

It is a corollary of all this that there is no cosmic "absolute time" of the mathematical homogeneous sort such as is discussed by Newton as flowing smoothly at a constant rate, irrespective of the happenings supposed to be "in" it.[1] This, which presupposes experience of successions, belongs to the very late stage of invention when the human sentient launches his conceptual schemes. No flowing of different qualitative contents, no experienced time-succession; changing contents, in the regard of Nature and History, *are* concrete time-sequence. When we say that two periods of time are equal, it is only by a convention, as Poincaré observes, that the statement has meaning. The *qualitative contents* are all-important. Five minutes

The mathematicians' "absolute time" a human invention.

[1] "Absolute and mathematical Time in itself and in its nature without relation to anything external flows equally . . . " Such a time is never experienced. It belongs to the domain of the Command-Concept.

(as measured by spatial artifice) of acute neuralgia are quite different from five minutes of a dull walk.

What the "public" or "common" time-process is.

On the other hand there is a "public" or "common" time-succession embodied in the flowing of the creative process regarded as a whole. But this is a concrete reality and not a bloodless Command-Concept of the study.

Mathematical homogeneous time has the feature of *succession* in view; hence Newton's talk of "flowing." But concrete time, as we saw (§ 1), covers much more than time-*successions*. It is needful to bear this in mind faithfully as we proceed.

The C.I. and Space

What space is not.

§ 6. Concrete cosmic space, the birth of which we shall try to trace later, is not a receptacle; a "void immense" which could persist, were all other reality annihilated; a void in which existents, also conceived somehow as spatial, spread themselves out so as to occupy positions, have relations of size, shape, direction, distance, and room to move. It is not a supersensible *entity* such as some inventive student of Euclid, Lobatschewsky, or Riemann might ask us to believe in. It is not an active substance *sui generis* which could warp honest parallel lines or kink respectable figures.[1] It consists of qualitative imaginal *contents*, like colours

What it is.

[1] "Spaces," which have this or that active "property," are conceptual inventions of our own. "The truth," writes J. B. Stallo in his *Concepts and Theories of Modern Physics*, "is that the space whose idea underlies all geometrical constructions whatever, including those of the pangeometers, is neither flat,

and sounds, present together, *i.e.* related, in a certain ORDER. The whole comprising these contents, and quite inseparable from them, is "public" or cosmic space.

In modern philosophy Leibnitz did much to press that form of idealism which regards space as private to finite sentients—gods, men, and beasts. We have here, he says, an "ens mentale" which derives from our "confused" perception of the relations of simple things (monads) themselves not spatial at all. Space, thus explained, is an "order of co-

nor spherical, nor pseudo-spherical, nor of any other inherent figure, but is simply the intuitional and conceptual possibility of tracing any or all of the lines characteristic of plane, spherical, ellipsoidal, paraboloidal, hyperboloidal, etc., and, to some extent, pseudo-spherical surfaces within it—a possibility due to the circumstance that it is nothing more or less than a concept formed by dismissing from our mental representation of physical objects, not only all the attributes constituting their physical properties other than extension, but also all the determinations of figure by which they are distinguished. *Space has no internal structure or inherent figure, because it is not a physical object and therefore has no "properties" which can be ascertained by experiment or observation.*" In the course of an eminently lucid article in *Mind* ("Is our Space Euclidean?"), C. D. Broad urges appositely that the issue reduces to this. "Can we construct a system of physics which assumes Euclidean geometry for space and enables us to deal consistently and adequately with all the data that scientists agree to be most worthy to be taken into account?" That is the test of the worth of Euclidean geometry. But, tested in this way, rival geometries may prove satisfactory as well. "If we can also make up a system of physics which shall deal consistently with all the sense-data recognised by science and assume hyperbolic geometry, then our space will also be hyperbolic. The moment that we see that physics and geometry are essentially correlative factors in a certain way of treating a common experience we see that there need be no essential incompatibility between the three geometries."

The idealism which makes space private to ourselves and other finite sentients.

existing " which obtains only for qualitative *contents* of this or that monad. It is not an order which includes the monads themselves. It has, therefore, no cosmic standing. There are private spaces, but no public or common one.

Leibnitz *v.* Kant.

This view is superior to the clumsy hypothesis put forward by Kant. It defines space as the *order* of contents as co-existing ; an order such as we aware in the colours of a sunset or the tactual experience of a table. There is no futile talk about a " form " which awaits a " filling " provided by sense. *No sensible contents, no spatial order of co-existent positions.* But it is not clear how the various coloured points in the sunset contrive to *allot positions to one another*, nor, if they are unable to do this, how our " confused " total perception arranges them. And the " monads," whose " combinations " are said to correspond, in a non-spatial way, to these spatially arranged colours, are not, as we have urged, verifiable entities.

Cosmic space as an imaginal triumph or invention.

Space is a manner in which qualitative contents appear in the C.I. during that swing to particularity and " looseness " in which the many assert themselves and bring about the self-externality and discords of Nature (Part III. Chap. IV.). Why did the original *simultaneity* of content pass into the forms of self-externality which we call sequence and co-existence ? We shall suggest later that the passage implies conflict and that co-existence—the existence of contents alongside, and more or less independently of, one another—is one of the first great cosmic inventions to cope with conflict ; an imaginal triumph whereby an otherwise insoluble

problem is met. Leibnitz calls time-succession an order of "possibilités *inconstantes*, mais qui ont pourtant de la connexion," and, unless my recollection fails me, says a somewhat similar thing about (private) space. Anyhow, time-succession and space provide more room for "*compossibles*," and thus modes of reality, otherwise mutually destructive, obtain a field. A simple illustration is that red and yellow cannot exist at the same points of time and space without a conflict fatal to both, but the field of co-existence or space allows each to have a position in an order without prejudice to its character. We shall return to this topic in discussing the story of creation.

A belief in concrete cosmic space is necessary to the understanding of the world.

The reality of concrete cosmic space is presupposed by any attempt to understand experience in a way fully adequate to the facts, neither science nor common sense being able to make anything of the world without belief in a spatial order independent of the private experiences of finite sentients. What they conceive as thus independent is the concrete space embodied in the content order within the C.I. A Leibnitzian or Kantian space belongs to subjectivism.

Is space, considered as extending outward from a given point, infinite? No.

Is the spatial order, considered as extending outward from a given point, infinite? As in the case of time-succession, quality will decide the issue. If, in the case of *this* or *that* particular World-System in creative evolution, quality is limited, the quality-*order* will be limited or finite as well. In popular language, "space" will be finite. And, as in the case of time-succession, the conceptual gymnastics of men, talking aloof from fact, will not bear on the

solution at all. Note that, with the regarding of space as finite, the famous first law of motion becomes only a " working principle " of restricted scope.

Is space, considered inwardly, infinite? No.

Is space, considered inwardly, infinite or finite? Has every part of an extended content parts which are themselves extended and so on? Here, again, quality decides. The divisibility will cease if the content is not such as to allow it. And in the case of an outwardly finite (this or that) World-System, we can hardly suppose that its parts, inwardly regarded, are infinitely divisible, possess content, that is to say, without limit. But if quality has its measure, the quality-order is measurable as well. Space here also is finite.

The Cosmic Imagination, could we penetrate intimately and directly into its arcana, answers all such riddles about space in terms of *content* and not by conceptual tricks of dividing and redividing, etc., in a thought-process kept carefully aloof from reality. Altogether too much importance is attached by men to high and dry conceptual thinking.

The space-order invades the contents of our own psychical lives.

We shall contend later that the space-order of Nature is continued in the contents of experients like ourselves. The contents of my conscious life are spatial as well as ordered in time. But we have far to go before we can discuss space as it invades the finite sentient. The invasion is, withal, indisputable; indeed, the notion that extension does not show within my psychical life is *demonstrably* absurd. I can *point* to extended facts in my " outer " and " inner " experience alike.

James did good service in urging that the "relations" which we call spatial (size, shape, distance, direction, container and contained, up and down, etc.) are not supersensible reality, but homogeneous with the terms or contents which they are said to relate. Concrete space, we may say, reduces to a whole of coexistent qualitative contents. And we must keep this aspect of wholeness always in mind. This *whole* of positions is the canvas on which Nature is painted within the frame supplied by the C.I. The positions occupied on the canvas by these or those contents *cannot be considered as due solely to the contents themselves*, but involve a reference to the whole in which they occur.

The total spatial *content*-order as contrasted with an *abstract* "absolute space."

This whole is imaginal thought within the C.I. It is not what has been called "absolute space," still dear to a few mathematicians and "realists"; a merely conceptual entity which remains always self-identical and immovable, a fixed place of places with fixed positions and fixed points of the compass. All the facts which seem to require this abstract "absolute space" can be better understood by reference to that *total* content-order which is the actual form of concrete space as it obtains in and for the C.I. There is no call to dally with mathematical abstractions.

"Absolute space" not required.

Thus suppose with Poincaré a man on a planet "the sky of which was constantly covered with a thick curtain of clouds, so that he could never see the other stars. On that planet he would live as if it were isolated in space. But he would notice it revolves, either by measuring its ellipticity . . . or by repeating the experiment of Foucault's pen-

Planetary rotation and "absolute space."

dulum. The absolute rotation of this planet might be clearly shown in this way . . . we know that from this fact Newton concluded the existence of absolute space." [1] Anon he writes, "Would there in this case be any meaning in saying that the earth turns round? If there is no absolute space, can a thing turn without turning with respect to something; and on the other hand, how can we admit Newton's conclusion, and believe in absolute space?" [2] Poincaré's final view is that the two propositions "the earth turns round" and "it is more *convenient* to suppose that the earth turns round" have one and the same meaning.

"Absolute space" and astronomers' descriptions.

"Absolute space" as a standard of reference by which to judge movements could not be replaced by other celestial *bodies* (such as the raising of Poincaré's cloud-curtain might reveal). "Relative movements" might not satisfy the investigator. Thus, if "relative movements" only are in view, Ptolemy's description of the movements of the solar system may be considered afresh. It is a matter of convenience—the avoiding of tiresome complications—that we prefer Copernicus. After all these are only two ways of *describing* the same facts. They need not aspire, like an advanced metaphysics, to penetrate into the very arcana of Being.

Kant and the space-whole.

Kant argues that the difference between, *e.g.*, two spirals wound in opposite directions, but having the *same inward ordering* of their parts, lies in the *outward* relations of these objects to a space-whole given absolutely. His space-whole or "infinite

[1] *Science and Hypothesis*, English translation, pp. 78–9.
[2] *Ibid.*, p. 116.

necessary continuum" is not, indeed, the "absolute space" of some realists; it is a form of finite perception only and does not exist in the domain of things-in-themselves. But it manifests a similar outreaching to a standard space by which the movements of bodies, relatively to one another, and even their subtle differences of configuration are determined.

Neither the Kantian subjectivist space nor the absolute space of realism, so-called, are verifiable.

We have not yet discussed the full metaphysics of space and movement, but we are able, nevertheless, to say this much. The subjectivist space-whole of Kant, only valid for our perceptions, is not a verifiable datum. Unverifiable, also, is the "absolute space" of some realists; an extraordinary "realism" this which supposes a reality which can be present *neither to perception nor fancy* and can only be discussed by way of the device of the Command-Concept! (Part I. Chap. II. § 4).

The "real" space-whole.

The total order of contents as coexistent in and for the C.I. furnishes a *real* space-whole incomparably superior to that of the conceptual space of the so-called "realists." And I am sure that when the plain man expresses belief in "absolute space," he is thinking not of the pseud-entity of some mathematicians, but of this imaginal or sensible space, vaguely as it comes to him. I suggest that he has in mind normally an expanse that is faintly coloured, imagined movements through which are attended with echoes of muscular, articular, etc., sensations such as characterise his experience of the workaday world. Space, the gaunt concept, concerns men of the study,—though it serves their limited interests right well.

Concrete space is one of the greater inventions of imagination in connection with a world-process. There is an old saying " The world was made not in time,[1] but with time "—we may add " not in space, but with space." Space, considered as a novel manner of appearing of content, is, of course, a reality as real as the content itself. " Relative movements " of bodies in respect to one another have to be considered as occurring *within this total space.* A divine experience, which includes this total space and all its parts, includes all that we misdescribe, or symbolise very distantly, by such concepts as " absolute space " and " absolute motion."

6. The C.I. as Infinite. The Multiple Subordinate World-Systems as Finite Throughout

§ 7. The C.I., as we have seen, is a whole which may (or may not) include changes ; the source of the changing lying within itself. Its character, as imagination, is to be active in the way of enjoying statically or of creating ; imagining, even as we know it in its dim manifestations in ourselves, is alike conservative and productive. The productive or creative process of cosmic change shows the divine fecundity. The C.I. is not limited to a conservative wholeness or completeness of being ; it overflows into novelty, at once imaginal play and experiment, witnesses the birth of great successes and also results of no value or even sheerly evil, the bare memory of which has to be destroyed. Time-succession and space are only aspects of this creative march.

[1] *i.e.* time-succession.

Philosophers have often *deduced* their unreality from their "incompleteness," transcending them in a reality which abolishes the "contradictions" native to all "incompleteness." But this is, to all seeming, an error. These "forms" of content are certainly within a greater reality, the C.I.; nevertheless, they are *real aspects of a real process* and must be recognised frankly as such. They are "forms" invented in connection with a changing cosmos which is out of harmony with itself, and *finite throughout*. This mention of finiteness brings us to our next topic. Is the C.I. itself, the ground of this changing cosmos, infinite or finite? And, if we say "infinite," in what sense are we using this term which conveys often a meaning too vague for philosophy?

The C.I., is it infinite or finite?

"Infinite" and "finite" can, of course, be interpreted in a *numerical* way and, in the regard of special problems, must be. But number may become an obsession. Some writers, indeed, seem to have thought that, in ascribing numerically infinite attributes to the Ground of appearances, they were in the attitude of exalting its majesty. Thus Spinoza invests his "Substance" with an infinity of "attributes," although, on his own admission, *he requires only two*—thought and extension—to account for the known cosmos. There is a tinge of adulation about this kind of writing; nobody being in a position to say that the Ground has infinitely numerous attributes of those wider types such as Spinoza has in mind. What is the numerical infinite? A multiplicity which a hypothetical enumerator can be imagined to count for ever without hope of concluding his task? Or, as conceived

The numerical infinite.

according to the decree of Cantor and the new mathematics, to wit, any class of which the parts are numerically similar to itself? Thus the series of whole numbers 1, 2, 3, 4, 5, 6 . . ., comprising odd *and* even numbers alike, is numerically similar to the series 2, 4, 6 . . ., which is part of it. Every term of the first series can be paired with another of the partial series in a "one-to-one relation" and this endlessly.[1] You would hardly press for a numerical infinity of "attributes," the essential significance of which is that it shall satisfy this definition.

Another meaning of "infinite."

Another use of "infinite" is in such phrases as "infinite" love, "infinite" wisdom, and so forth. Love, of course, is not a class of which the parts are numerically similar to itself. Nor, again, is it infinite in the sense that it is not bounded by *other* aspects of the Universe. Like all these other distinguishable aspects, it is limited by existence beyond itself. It has its measure. "Infinite," as used thus loosely, can only mean "perfect *after its kind*." Freedom from special limitations, such as would impair this ideal excellence, is implied. We shall discard this use of the term.

[1] Finite numbers are defined in two ways, one by mathematical induction. "If n be any finite number, the number obtained by adding 1 to n is also finite, and is different from n. Thus beginning with 0 we can form a series of numbers by successive additions of 1. We may define finite numbers, if we choose, as those numbers that can be obtained from 0 by such steps, and that obey mathematical induction. That is, the class of finite numbers is the class of numbers which is contained in every class s to which belongs 0 and the successor of every number belonging to s, where the successor of a number is the number obtained by adding 1 to the given number" (Bertrand Russell). The other definition regards finite numbers as those of classes unlike their parts as "obtained by taking away single terms."

Locke, discussing the idea of the infinite, holds that it arises from the denial of limits. Descartes calls mere endlessness of this kind the "indefinite," or merely negative infinite. He reserves the term "positive infinite" for God considered as *sum of all the perfections.* The infinite then, in this sense, is the one perfect reality. It is primarily qualitative and has no numerical implication save in so far as "all" the perfections are involved.

Descartes: the negative infinite and the positive infinite = the one perfect reality.

Hegel has a suggestive passage which bears on our solution. "The nominal explanation of calling a thing finite is that it has an end, that it exists up to a certain point only, when it comes into contact with, and is limited by, its antithesis. The finite therefore consists in being attached to its antithesis [what it is *not*], which is its negation and presents itself as its limit. *Now thought is always in its own sphere* . . . the thinking power, the "I," is therefore infinite, because, when it thinks, it is in relation to an object *which is no other than itself* . . . when it is fully thought-out, the object is, as it were, absorbed and held in abeyance." [1]

Hegel and the infinite.

It is in this sense, first and foremost, that the C.I. is infinite, *i.e.* it is not, like one of its subordinate contents, bounded or limited by existence *other than itself.* It is always in its own imaginal realm. A subordinate perfection is never infinite; it does not exhaust reality, is limited by other aspects of this reality; is, consequently, *at the best, only without limits such as impair its special excellence.* But the C.I. has no limits due to the existence of an "other" beyond itself. It is, in this sense, a boundless, an infinite reality.

In what sense the C.I. is indubitably infinite.

[1] *Logic of Hegel,* Wallace's translation, p. 52.

But if now you ask, "May not this reality, which has no limits set to it by 'other' existence, nevertheless, be finite in the sense that its contents are limited in kind and quantity?" you raise a difficulty. And we shall not find an answer, unless we bethink ourselves of the character of our Ultimate and are free to cut ourselves clear from traditional thinking.

But are its contents limited in kind and quantity?

The C.I., then, is infinite having no limits save those which it imposes on itself. But these self-imposed limits set bounds to the variety of its content. All content is within its conscious grasp—it is free to be conscious of everything and anything. But can we say that this content includes all *possible* content? Hardly. There are worlds easily imaginable in our vicious, insane, or experimental moods which are infernos and which, we may assert confidently, will never be embodied in divine thought on the cosmic scale. A world evolved solely for the torture of its creatures would be a good instance. We may contend thus (1) that the content actually present to the C.I. either as contemplative or as initiating a time-process is, assuredly, limited in very important respects, and (2) that the noxious content, produced so lavishly in connection with us finite sentients and due in part to our own initiative, in part to the bacchantic imagining of Nature, is not to be permanent and foul eternally the cosmic thought (Part II. Chap. III. § 5). It will be suppressed by the scavenger, change—blotted out so that the total imaginal cosmic life may take no hurt. The only tolerable conservation is one of values. This suppression is clearly a limitation, though self-imposed, of the content which the C.I. conserves.

All possibilities of content are not actual in the C.I.

Thus it seems incredible that all content, which is possible, is actual in the C.I., and, accordingly, a time-honoured attempt to cumber the World-Ground stands condemned. The true infinity of the C.I., in respect of content, consists in this. Consider first the phase of creation. There is *no limit* to the production of new content, if the free life of imagination requires it. And this content, initially imperfect, changes slowly toward "perfection"—*i.e.* toward the *thoroughly made* stage of reality, as the etymology of the word "perfection" itself indicates. Consider, again, the life of the C.I., as contemplative or conservative. In this the perfected or *thoroughly made* reality of a time-process has passed into that enduring wealth, which includes already untold treasure—the treasure which is in heaven, as a theologian might say. The reality of time-succession, as it flows into the past, is not yet, as we suggested, completely made (Part II. Chap. II. § 5). But when thoroughly made, at the cost, perhaps, of obliteration of much of its original content, it has become a romance amply worth preservation in the divine consciousness.

The infinity of the C.I. in respect of content.

In the Cartesian sense of the term the C.I., as contemplative activity of rest, is "infinite," because it is the one perfect reality, the totality of the accomplished perfections harmoniously blended or compenetrant. But novel processes of the making of reality and novel perfections are yet to flower, since imagination, in virtue of its eternal character, is active to achieve as well as to enjoy.

The Cartesian infinite again.

To sum up:—In respect of its self-dependence the C.I. is infinite in the Hegelian sense of the term.

Summary of results.

In respect of its contents, it is, at any rate in its purely contemplative or conservative aspect, infinite in the Cartesian sense, as a totality of the perfections harmoniously fused. In respect of the variety of its contents, there are limitations in the interest of the total imaginal life. Your first thought may be that these limitations imply the *numerical* finiteness of the contents present to the C.I. But this would be a mistake. You may subtract a quadrillion units from an infinite collection and you will still be unable to count the other units of the collection—for the excellent reason that no last unit can be found. Similarly in the case of infinitely numerous content-differences in the C.I., the suppression of quadrillions would leave the rest infinitely numerous still. I am ignoring the issue as to whether there is an infinite number of such differences. The excuse is that I do not know and cannot find out, and I doubt not that my readers are all in the same predicament.

Numerical finiteness of contents is not implied.

Our World-System is probably only one of a multiplicity, perchance an infinite plurality, of like Systems, not directly in touch with one another. And no one World-System can be supposed to exhaust the outgoing of the IDEA; it is rather a sandgrain of colossal importance only in the eyes of its allied sentients. It is a *this* or *that*, finite as part of a multiplicity in which it is almost lost.

Any one of the subordinate World-Systems is finite throughout.

Finite, as having "others" beyond it, our World-System is, doubtless, also finite in all respects. And we must not be led, by study of mathematical theories of infinity, continuity, and the like, to lose sight of this commanding consideration. These

A World-System must not be considered in the light of abstract mathematics.

theories are not able to dictate to empirical reality, with which as "truths" they would have to agree. The reality with which they deal is of the type discussed in our section on the Command Concept and Proposition (Part I. Chap. II. § 4). It is reality summoned into being by human decree, but which, so far as the present world-era is concerned, has not obeyed the call. Not all imaginal inventions of finite sentients are realised or realisable in things, and, so far *e.g.* as Nature's contents are concerned, "infinite collections" and the rest have no existence. They belong to the aborted imaginal creations of private thought.

A given System may be described as a "budding-off" of a fragment of content from the C.I.

A given Nature is finite; there is what we might almost call a *budding-off* of a *fragment* of content from the C.I. to constitute it. And this finite fragment has its finite orders of space and time-succession. For space and time-succession are not empty "forms," which receive a filling of content, but are *content itself* which, in virtue of the invention of the C.I., appears in these novel ways. There are not wanting empirical indications that these content-orders are finite, but the general considerations already submitted seem to suffice.

Infinite divisibility as affirmed of "space," "time," and "matter."

The "infinite divisibility" affirmed so freely of "space," "time," and "matter" is to be criticised as follows. Observe, once more, that you are not in a position to *verify* any assertions stated in this manner. Pure "space" and "time" are never perceivable nor imaginable; thus every experience, whether of occupied (resisting) or so-called empty (non-resisting) space, is charged with qualitative content: with sensations or an ideal filling.

The "pure forms" are conceptual inventions. No one, save conceptually, has ever divided a part of "pure" space or time; he has never even been aware of it. Intuited space and time are always "impure" with filling. "Matter," again, is a concept which does not, as such, exist in Nature; it is merely one of our inventions, a content not perceived, but of the intellectual sort. We have disposed, however, of the claims of "matter" long ago (Part I. Chap. II. § 7).

The form in which the question of infinite divisibility ought to be discussed.

The question must be discussed under the form —are spatial and timal *contents* infinitely divisible? and we have considered this issue already. If content is available in inexhaustible amount, a spatial or timal quantity lends itself to this operation; if not, the operation is merely mental gymnastics. There is a tendency to believe in indefinite divisibility at first. Thus, having divided a sand-grain in thought, I can imagine one of the portions magnified, divide it again, and repeat the performance by the hour. Or, not troubling about pictorial imagining, I can conduct the operation verbally. There is nothing to limit the process, but there is something to invalidate its truthfulness. If *content* is not sanctioning these endless divisions, I am undone.

Content decides.

Qualitative content of a fragmentary world, finite in virtue of its very origin in "budding-off," is not such as to support endless actual divisions. A lack of sensible content will limit the possible enumeration of "points," "instants," and "bits."

Experience lends no support to the belief in

"infinite divisibility" as fact. It is a Command-Concept (Part I. Chap. II. § 4) unratified, so far as we can tell, by reality. It is accepted widely because it has "mathematical" backing and mathematics is supposed to have a specially assured grasp of truth. This way lies the danger. Mathematics, as applied to practice and as furthering our imaginal previsions or "calculations," requires no defence. But a large portion of its theoretic part is aloof from the concrete experienced world, is, in fact, a world unto itself; *aborted imagination*, to which nothing in things corresponds. It forms a very interesting byway, which need not, however, concern those who tread the main highroad of cosmic life. Are you murmuring something about "universality and necessity"? There is nothing that need disturb you here. Universality and necessity, when they obtain, may concern only a conceptual field. If you create stable "entities" by Command-Concept and create, also, stable rules of operating them, you can pursue the "universal and necessary" game to your heart's desire. You are, by hypothesis, always dealing with the same things in the same ways. It has been overlooked that even a game of chess, understood in this manner, is "universal and necessary." That is to say, .1. P-KB4. .1. P-K4. .2. P-K Kt 4. .2. Q-R5. Mate is *always* valid and *must* be valid. For the "pieces" or "entities," indicated by the symbols, are always the same, *in the respects that concern the game*, and the modes of using them are always the same. The above-noted record is, therefore, literally "universal and necessary." But the statement holds true *only within the domain of chessboards*. And a mastery of the chess-domain would not of itself fit you to explore the Universe.

"Aborted imagination."

"Universality and necessity" hold of a game of chess!

Experience *does* present to us finite things existing in finite numbers.

On the other hand, experience acquaints us with perceived spatial objects of varied *finite* sizes and existing in numbers which, assuredly, would be found to be always *finite*, had any one the interest and means to count them. No one supposes that men, pyramids, sandgrains, and microbes exist in numbers so copious as to form classes whose parts are numerically like themselves, *i.e.* numerically infinite. A column of leaf-cutting ants or the molecules in a gallon of water are very numerous, but they are not an "infinite collection." And similarly in respect of time-content, it is only the finite which actual experience reveals. This is to say, that the theorist has to refer his "infinite divisibility" to regions which processes of verification never reach.

"Infinite divisibility" would make actually known facts impossible.

Could I cross a room?

But this speculative "infinite divisibility" is not only a dweller in darkness. It seems designed, also, to preclude the possibility *of what we know to be fact*. Thus I cross a room—in so doing I have occupied in succession, according to certain mathematicians, an infinity of spatial points. Which is impossible. You can no more traverse a succession of *infinitely* numerous points than count your way through them. The initial inch would bog you. For the inch and the divisions of the inch are all said to contain an infinity of points. You cannot exhaust *one after the other* points, the characteristic of which is that they never can be exhausted. The theoretician has overlooked a *practical* difficulty. As James points out, things have to be accomplished as well as "analysed" after the event.

A like difficulty concerns a time-transition such as the explosion of gunpowder after contact with a

match. The explosion could not occur if infinitely numerous changes parted it from the lighting. The changes, be it remembered, are not "in time" —*they are time-succession itself*, and if they are infinite in number they cannot *end* in the explosion at all. There is an inclination, in face of this difficulty, to talk of the changes as if they are somehow "condensed," but there is no escape open by this route. You cannot suppose the "condensation" of *infinitely* numerous changes: only of finite series of changes such as may take place in our perceptions of colour and sound.

Could gunpowder be exploded?

7. The C.I. and the "Law" or "Principle" of Contradiction

§ 8. The law or principle so-called of contradiction (A cannot be both B and not-B[1]) has played a great part in recent metaphysics. It is one of a trio of time-honoured *a priori* "laws of thought," of which logicians have made much in the scarecrow science known as "Formal logic." It seems to say little, but is aggressive. Thus it sallies forth, with enormous pretensions, into the philosophical speculation of thinkers such as Bradley. The logical formula "A cannot be both B and not-B" passes into a metaphysical principle "*the Real is not contradictory.*" Sensible qualities, change, causation, activity, space, time, evil, motion, Nature, the self, etc. etc., are discredited as not satisfying this criterion. It is urged that, if we hold strictly to the "law" of contradiction, we shall have to discard as "unreal" apparently obstinate "realities" which impress the plain man. In fact,

The principle sallies forth out of logic into metaphysics.

[1] Sometimes put "a thing cannot be other than itself."

scepticism will become so radical that only a hypothetical and most uninviting Absolute, shut off from human experience, can survive criticism. Anything short of this Absolute possesses only a "degree" of reality, "the essence" of all finite sentients and things being "contradictory." The fabric of experience crumbles into ruins as we think.

It seems necessary, therefore, that we should try to limit the pretensions of the "principle" or, as we shall prefer to call it, *maxim* of contradiction. Perchance we are Frankensteins terrified by a monster of our own creation. And, perchance, the monster may prove less formidable than he appears.

According to Hegel, experience contains "contradictions."

If Hegel is right, the "law" of contradiction cannot have been derived, as Mill and others have urged, from experience. According to this writer, "There is absolutely nothing whatever in which we cannot point to contradictions or opposite attributes and necessarily so: and all that the abstraction of understanding [distinct conceptual thought] means is the forcible retention of a single attribute, and the effort to obscure and remove all consciousness of the other attribute which is involved." Or again, "Every content . . . includes not only diverse but even opposite characteristics. Nothing is so impossible, for instance, as this, that I am; for 'I' is at the same time a simple connexion with self, and as undoubtedly connexion with something else. The same may be seen in every other fact in the natural or spiritual world." [1] Herbart, indeed,

[1] Wallace, *Logic of Hegel*, "Doctrine of Essence," p. 225. Hence there are not merely four Antinomies such as Kant discussed. Antinomies appear in all objects of thought whatever,

holds that these "contradictions" persist still, even though *nominally harmonised*, in Hegel's higher affirmations, and bases an objection to his system on the supposed fact. This is a telling contention. But whether we assent to it or not, the alleged basic "contradiction" of the finite, to wit that "it is somewhat *as well as something else*," has to be reckoned with. "A thing is what it is only in and by reason of its limit. We cannot, therefore, regard the limit as only external to the being which is then and there. It rather goes through and through every part."

The alleged basic "contradiction" of the finite.

If, as a radical empiricist, I take experience at its face value, I seem forced to hold that anything I know is always and inevitably itself and, also, something else. In an entirely convincing way :—

> "Nothing is that 's single,
> All things, by a law divine,
> In one another's being mingle."

The basic "contradiction" asserted of the finite by Hegel is only a manner of expressing this "mingling."[1] We are sure that finite things "mingle" in the Cosmic Imagination and that any "law," which suggests that they exist altogether apart from one another, is absurd. Anything is something else, in so far as this latter penetrates and helps to constitute it. But in workaday life we largely ignore the "something else" in the interests of practice ; and even as thinkers, anxious

[1] Another manner is the mathematical one I cull from Stallo. "In mathematical phrase : things and their properties are known only as functions of other things and properties" (*Concepts and Theories of Modern Physics*, p. 134).

to adequate our private thought to reality, we tend to overlook it, if only from habit.

Herbart, also, admits that experience contains "contradictions."

Herbart, though opposed to Hegel, does not suppose that there are no "contradictions" in experience. On the contrary, he considers that the business of metaphysics is to remove the "contradictions" from modes of experience and to work patiently towards non-contradictory thought. Thus he holds that the "inherence" of properties in a unitary thing—a tree or ink-pot—gives rise to the self-contradictory concept of a one that is many. Similarly the popular concept of an "ego," in so far as it implies the presence of the many in the one, shows contradiction. It has to be rethought, and freed from this blemish.

If truth must be self-consistent, what is to be done with empirical "contradictory" reality by Hegel and Herbart?

Aristotle says that truth must be consistent with itself in every direction. But its first duty surely is to be consistent with reality. What now if this reality contains "contradictions," and truth, reporting the contradictions, has to find room for them? Truth will contain "contradictions," because it dares not "contradict" reality! Consequently it is necessary for Hegelians and Herbartians *to try to "transform" reality, as we know it, up to the point where its "contradictions" disappear.* Hegel and others try to do this dialectically and identify truth with the *whole* of a thought-out reality which has no "other" outside itself and is, therefore, consistent with itself. But, if Herbart is right, the "contradictions" still persist even in Hegel's alleged harmonious whole. Herbart, again, invents a non-contradictory system of "reals" *beyond* empirical reality altogether—at the "back

Outstanding contradictions.

of Beyont," as we must say. This is an ingenious dodge. We may admire it or we may not. But we must object anyhow that the problem of the *original* "contradictions," which come to experience *and to our raw concepts about it* ("thing," "ego," etc.), is not dealt with. How do contradictions contrive to appear in a World-System which, in other respects, is said to resent contradiction?

Leaving Hegel and Herbart to their difficulties, let us grope a way towards a solution of our own.

On the futility of merely abstract principles.

Is the formula of contradiction a "law" of the existence of things? There is no cause to bow the knee before Baal. All formulae of this sweeping sort must be questioned.[1] Whether advanced as "*a priori* truths," or generalisations from experience, they must be justified in and by the instances or phenomena to which they apply. Now the "law" of contradiction, if it means that "a thing *cannot* be other than itself," seems negatived by every finite existent known to us. Something may be salved from the wreck, but it is not clear yet where we are to find it.

The riddle of the "other."

"A is B" in the instance "this grass (A) is green (B)" implies an *other* or not-B, failing which A would not be B. This *other* "goes through and through every part" of A, as Hegel rightly observes. The finite thing is thus not only *itself*, to wit green

[1] "The recognition that a statement can be true in one sense and false in another—true for one purpose and false for another—renders the Laws of Thought available only for the setting of problems, not for solving them" (Sidgwick, *Elementary Logic*, p. 157).

grass, but *also* the "*something else*" which green grass implies, and in virtue of which it is *itself*. This "*something else*" belongs to Nature.

An essential caution.

So far, so good. The meaning then of the so-called "contradictoriness" of this green grass is that, though it is discussed initially as *merely itself*, it is *also* its *other*.[1] This is not to say that the grass is also yellow. Such a statement would impugn the fact that it is *itself*; that it is B as well as not-B. And we are considering a case in which B is taken for granted. B (green) is a presentation which attests itself.

Why I "notice" only that A is B.

In the interests of *distinct* perceiving or conceiving and of the selective action based on them, attention is focussed restrictedly and very partially. We are not always wanting a complete vision of truth. What is "noticed," regardless of irrelevant and unhelpful implications, may suffice for our passing needs. Thus if I am painting the green grass, it is enough for me that A is B; the *other* I leave to the philosophers.

A grave difficulty.

But now note the complication which worsens this difficult discussion. On the one hand, I have to accept and endorse the view that A is B and also "something else." But, on the other hand, some one says to me, "Does not the 'law' of contradiction hold of such opposed statements as 'the grass

[1] "The senses, with their utter want of thought, took everything limited and finite for Being. This passes into the obstinacy of understanding, which views the finite as something identical with itself and not inherently self-contradictory" (Hegel, *Logic of Hegel*, Wallace, p. 181).

is green' 'the grass is not-green'; 'not-green' being the contradictory which, at first sight, merely denies green, but which means in practice one of a list of *contrary* colours? Can grass be green and a contrary colour, as Aristotle puts it, 'at the same time and in the same way'? And if you admit the validity of the 'law' in this case and allow that here, at any rate, A is not both B and not-B, what about Hegel's sneer at the 'law' as a mere form of the 'abstract understanding'?"[1] The situation is a trying one, and I propose to deal with it tentatively thus.

Is a "finite thing" properly described as "contradictory"?

Is the "essence" of any and every finite thing properly described as "contradictory"? Any A that is B is, also, in the Hegelian sense, something else, to wit the not-B which, penetrating it, makes it just A. It is its "other," in so far as the "other" helps to make it what it is. In this sense the "other" of the green grass is, in last resort, the nature-system within the Cosmic Imagination. The very date of the grass, its place, form, colour, temperature, rustling, moisture, etc. etc., implicate this "other" beyond itself. But we shall do well to be wary of the term "contradiction" as expressing this situation. Green grass, sound, a toothache, a mountain, etc., are not, properly speaking, "contradictory." They are *incomplete* aspects of a reality, the contents of which do not exist isolatedly, but *penetrate and, to this extent, help to constitute one another.* This reality is the imaginal universe. The *extent* of this compenetration of contents, the extent of this alteration of the contents' intrinsic differences by mutual influence, offers a very hard problem. Later

[1] *Logic of Hegel*, p. 184, "Doctrine of Essence."

we shall be unable to ignore, however incompetent we are to solve, it.

Penetration and conflict.

Now this penetration of contents by one another (so that the sun, for instance, is literally where it acts, *e.g.* in the light of the green grass) is not merely a process of *conflict*. Penetration may further, as well as clash with, the character of an invaded content—it may bring novelty into it while not altering its radical quality. The not-B or "something else," which makes A what it is, is not always "contradictory" in the sense that it is *contrary* to the character of A as B and tends to destroy this character.

"Contradiction" as a case of conflict.

"Contradiction," properly so-called, is a case of *conflict*; the conflict of *counter-statements* which assert of a subject what we call "incompatible," "discrepant," "contrary," "disparate," "exclusive," etc., predicates. Green and yellow are such "contraries" or "discrepants"; you cannot assert truly that grass is green and yellow in the same place at the same time, because these colours *conflict* and refuse to meet, *i.e.* to compenetrate fully, while preserving their special characters.[1] But not all merely *different* contents of the C.I. are *incompatible*. Very many further, or are indifferent

Incompatibles.

[1] It would be rash to say that all empirically-known "incompatibles" must remain, under all conditions, contrary. Nature, writes James, "may realise a warm cold thing whenever two points of the skin, so near together as not to be locally distinguished, are touched, the one with a warm, the other with a cold piece of metal. The warmth and the cold are then often felt as if in the same objective place. Under similar conditions two objects, one sharp and the other blunt, may feel like one sharp blunt thing. The same space may appear of two colours; if by

to, one another, in which case they meet without the clash which alters them radically and reveals them, not only as different, but as contrary. The different mental functions, as Bain observes, blend "in commingling exercise." The "coinhering attributes" in a rose or piece of gold mark differences which are at peace and do not require separation in space and time in order to be "compossible." Other contents are not *fully* exclusive of one another, *e.g.* it seems a fact that one can hate and love the same total complex person in the same emotional attitude at the same time; and yet hate and love, which mingle thus, are classed as incompatibles which *tend* to oust one another. Other contents, again, are mutually intolerant as our green and yellow. A body as a whole cannot be alive and dead. A single figure cannot be at once a square and a circle. The configurations of square and circle are such that the making of them *is* the excluding them from one another in space.

The "law" of contradiction converted into a maxim or injunction.

And now we can return to the formula of contradiction. What does this really say? Merely that incompatibles or contraries are contrary? But *experience shows* what contents are or are not contrary.[1] Do we want a formula simply to maintain that contraries are contrary and that they cannot, therefore, be asserted of a subject "at the same time

special artifice one of the colours is made to appear as if seen through the other" (*Principles of Psychology* (Macmillan) i. 463–4). He urges that this sort of incompatibility "depends simply on the *de facto* peculiarities of natural bodies and of our sense-organs."

[1] It shows, *e.g.*, as we shall see, that, on the great scale, the One is not "incompatible with" the Many! Note that only experience can settle issues of this kind.

and in the same way" ? The formula, as thus understood, seems puerile. Its worth lies, not in conveying truth, but in the sphere of practice. It safeguards the use of words in private reasoning and in communications to others, spoken, printed or written. Its justification is veritably this. Green and yellow are incompatibles—treat them verbally as such when presentation and imagery fail. It is a maxim rather than an "*a priori*" truth or generalisation from experience.

Why we favour consistency of statements.

But consistency of statement, whether for our own use or that of others, is secured, not so much by this maxim, as by the desire to *live*. Verbal signs and the ideas signified by them must not be used in such a way that their conflicts mar the guidance of our activities, practical and theoretical. "There is no instinct needed but the broad instinct of self-preservation; were it not for this we should probably care very little about observing the conditions of necessary truth. If we could go on as well by maintaining an opinion in one form of words while denying it in another, there appears to be nothing in our mental constitution that would secure us against contradicting ourselves." [1] On the whole, we cannot afford to ignore consistency. But, nevertheless, very numerous inconsistencies are rife. The story of the religions is full of them. Even in the realm of science an "ether," about which batches of inconsistent statements are made, plays its part. The meaning of these facts is that inconsistency sometimes has its uses. In other departments of research there is an interest in consistency of statement as such, as in the case of the high and

[1] Bain, *Logic*, i. 15.

dry abstractionism of Formal logic. The formula of contradiction reigns here supreme. It is no longer a tacit convention, such as makes human intercourse fruitful and helps to check verbally embodied thought, but a consciously respected "principle" always kept in view.

Summary of Results

The C.I. includes *conflicts*, of which propositions that "predicate" contraries or incompatibles of the same thing are only illustrations. Contradiction, properly so-called, is a case of conflict of counter-propositions which "say" in opposition. To say that "grass is green and yellow in the same place and at the same time" is futile, because these qualities conflict and cannot compenetrate without losing their special characters. A cannot be B and not-B, since not-B here is not merely *different* from B, but *contrary* or *hostile* to it, and tends to destroy its character. It can be B and not-B, green and yellow, in different places or at different times, because the colours cease then to *conflict*. But there are other contents with which greenness is "compossible" in intimate mingling. A blending of the greenness and the sweet smell of a leaf is a case in point. A is both B and not-B, which latter is different, but not contrary, or destructive of the green.

Contraries are known only by experience. We do not, therefore, require a "law" of contradiction to assert that contraries are contraries.

But we require, perhaps, a maxim reducing the

risk of inconsistent statements in our thinking and communications "about" reality which is not immediately in view. Contraries or incompatibles are mutually exclusive modes of the C.I. Treat them verbally as such—let your propositions take heed of the warring realities to which they refer.

"A is B and not-B" as applied to the case of a tree. B and "not-B" here are not genuine incompatibles.

No finite thing such as a tree is "contradictory" in the sense that it is an "other," "something else," or not-B which is its contrary *in the manner in which yellow is a contrary of green.* It is true that the tree is what it is in virtue of "other" reality which penetrates, and so helps to constitute, it. But a vast deal of this "other" reality is only *different* from the tree and can and does penetrate it without conflict. The not-B, in short, comprises contents which are far from being all incompatible with the tree. When, and only when, the penetration of this not-B *becomes* incompatible with the tree, the tree is so altered that it dies. "A is B" vanishes, because not-B *has become* a true contrary which destroys it.

A last caution. Things are not unreal, because self-transcendent.

In noting the compenetrations of content, in endorsing Goethe's saying that things mingle with one another,[1] we must be careful not to infer that these things are, therefore, *unreal.* Some writers think that a thing which is "self-transcendent," which implies existence beyond itself and carries us in thought towards this, betrays in the process that it is false "appearance." This is a vagary of intellectualism. Anything, of which there is awareness, is in some way real, *i.e.* has a place in the

[1] We have yet to discuss this "mingling" and are only noting the truth that it occurs.

Universe. Westminster Abbey is what it is only because men, the solar system, and even a particular evolution-era within the C.I., are what they are, but, while it endures, its place in the Universe is as undeniable as the Universe itself. The most complete possible knowledge of its "conditions" would not abate this reality a jot. Similarly time-succession does not stand alone, but has, as we saw, its "conditions." The ultimate factness of the succession remains, nevertheless, unimpaired.

8. The C.I. and Religion

§ 9. The subject of religion, which refers us in part to individuals who want, invent, and profess religions, is postponed for full discussion later.

Religion must be emotional.

Religion is nothing if it is not emotional; a cold intellectual recognition of its object belongs rather to philosophy, or if the object be fictitious, to false philosophy. Regarded in this light, it is an attitude of devotion toward that which we believe to be the most perfect reality experienced. All else is incidental. This is the typical attitude toward which all religious developments tend, on the whole, to approximate. In dealing with this topic, we ought to avoid overrating the particular religion which an accident of birth, perhaps, has made our own. And we are to remember that the objects of religion vary with individuals, that the fetish, ghosts, and even trees have their votaries, that men have adored a mistress or the State as well as Allah or the Idea, and that the waste of devotion on the lower levels of religion is pathetic. The heights

The typical religious attitude.

Cautions.

of religion are sublime, but their screes are littered with rubbish. Few human enthusiasms have given rise to worthier results; few to poisons so persistently noxious to the individual and the community.

Particular religions, with their vested interests, come and go. But the Cosmic Imagination remains. Is there a cosmic emotion on the great scale which answers to the religious attitude of a finite being? We are chary of saying more about cosmic emotion than has been ventured already. But if religion be devotion to the most perfect reality experienced, we are reminded of what we have said already about cosmic love. The religion of the C.I. is the emotional rapture of an activity which awares itself in its content and awares that content as utterly beautiful and as whole.

Has the C.I. an emotional aspect which answers to the religious attitude of a finite being?

9. The C.I. and Truth

§ 10. With us philosophical truth is "about" reality. Truth closes fully with reality in the C.I.; conscious activity awaring content which is imaginal thought in its protean texture. Direct intuition, of the nature of immediate feeling, is implied—the *con*sciousness is at one with the content which it *co*-awares. This content is not limited to fixity. It shows the changeful or creative processes which we have discussed. But who can say how these novelties appear amid the other inexhaustible treasures of divine thought? On the ocean of the infinite a ripple, which *for us* might last a billion years, is as nothing. A romance of the great artist, fraught with the destinies of unnumbered worlds, is an episode.

CHAPTER IV

ON CERTAIN IMPORTANT ASPECTS OF THE C.I. CONSIDERED SEPARATELY (*continued*)

§ 1. We have considered already some important aspects of content. Content, in the widest sense of the term, means everything or anything of which the C.I. is *con*scious. The basic *con*tinuum of reality or the Universe is just the C.I. regarded as *con*scious, as actively *co*-awaring; this is the identity or unity side of the World-Ground; the basic "universal" that enwraps and pervades being. Content stands for the differenc s, the many, the relatively discrete variety which appears in the cosmic life; is a name for the indefinitely varied phases of imaginal fact which the all-embracing *con*scious activity grasps.

Our immediate task.

We have made speculative incursions into the domain of this cosmic thought; have sought to descry what are the general characteristics of this *total* imaginal life, and with results that prompt the making of further experiments anon. Thus we shall suggest shortly the manner in which Nature budded off from its imaginal ground, and, in so doing, may come to learn more about the character of the

ground itself. But before embarking on this venture, we shall do well to examine certain concepts which figure very prominently in our thinking about Nature and the sentients allied therewith. We must be able to state with some precision what we mean by the concepts of "things," "qualities," and "relations" which are always to the fore in discussions of this sort. And we shall have to consider with special attention the problem of the "interaction" of "things" in time-succession, and to submit in this regard a new view of the relation of causation of vital significance to philosophy. When suggesting later how Nature may have come to exist, we shall be glad that some preliminary treatment of causation was not overlooked. A novel "principle of movement," based on the imaginal character of reality, is to be mooted. Let us consider it separately before testing its virtues in the ordeal of a world-process.

"Things," qualities, and relations

The "interactions" of things

Observe that the foundations of our idealistic thinking are now laid. We have left behind what are known as the mechanistic hypotheses about reality. We considered these hypotheses and found them lamentably unsound (Part I. Chap. II.). They are ventures at war with the *experience* to which they appeal. We have noted, in the course of these criticisms, what the ultimate realities of philosophical materialism and allied creeds truly are. They are imaginal creations of finite sentients, of men like ourselves. They are not cosmic realities which pre-existed to the history of this planet and its children. They are brought into conceptual being when men, under the pressure of need, seek to control their environment and have to invent the

The ultimate "things" of mechanistic theories of reality.

mental instruments required. We might, therefore, say very properly that all such concepts as "force," "mass," "energy," "ether," etc. etc., so dear to mechanistic hypothesis, belong to the history of human thought and have no place in a serious discussion as to how Nature and sentient humans themselves came to exist. They serve as illustrations of how imagination continues to preside over the world-process which it brought to pass. But the cult of these concepts is so well established, so very difficult to shake, that a last word on the subject may not be out of place. Let us, therefore, tell the mechanists just once more why their metaphysics is radically absurd, and, afterwards, let us note how the more prominent of their ultimates show clearly as what they are, to wit, inventions which had no place in reality before their human inventors began to think.

What they are—they belong properly to the history of human thought.

10. A Last Word about Mechanistic Hypothesis

§ 2. The ultimate "things" of the extreme mechanistic school are bits of Matter (extended mass) and movements; time and space being available, no one knows how or why, as the stage of their action. The bits remain the same, in character and amount, whether moving or not; the movements, the sum of which is of constant quantity, can be transferred from mass to mass, constituting in this way "real" causal relation. Successive refinements of this crude attitude (which succumbs to a very little clear thinking) lead up to what is called "Energetics"; a view which explains reality as the transformations in space and time of an

occult enduring entity called "Energy." This hypothetical entity, which, despite its alleged presence in countless experienced transformations, can neither be perceived nor even defined satisfactorily, changes, we are told, under certain conditions, into so-called "psychical energy" or conscious life. It is elusive, having no abiding quality, and is as devoid of inward purposive unity as are the stable moving "masses" which it serves to replace. We have had already a smile at the expense of this entity, exiled from its proper domain of practice and thrust into metaphysics. We shall have others.

The fundamental meaning of mechanistic thinking.

Modern mechanistic views have their headwaters in the science of the waning sixteenth and seventeenth centuries and their remote sources in the mechanics and atomic materialism of some of the Greeks. The fundamental meaning of what has been called the category, *i.e.* way of thinking, of mechanism is that the behaviour of "things" is imposed always by other "things" *external to* them. Any discoverable whole consists, in last resort, of mutually excluding and externally determined parts, whether conceived as mass-particles, or as more elusive and refined modifications of these. Thus the notion of the machine contrasts sharply with that of an ideal *sentient unity* which expresses its purposive life in its "parts" and has its behaviour determined entirely by conditions within itself.[1] It is worth remark in this connection that the machines which

[1] "Mechanical" is an epithet that can be applied to knowledge and conduct. "Our knowledge," observes Hegel, "is said to be mechanical or by rote, when the words have no meaning for us, but continue external to the senses, to conception and thought;

figure on our roads, railways, and in our factories are not perfect instances of the "machine" philosophical. *They* at least embody our purposes in constructing them, and, further, they compel us to supervise more or less carefully the execution of these purposes. The machine philosophical, utterly divorced from purpose, present and past, is not to be found in the perceived world. It exists, in sooth, only in philosophers' heads, though it has served certain purposes of investigators remarkably well.

The rise of modern mechanistic thinking.

The science of mechanics was invented in Greece in response to an interest in such matters as levers and weights of bodies. Bodies regarded in such an interest abstractly from the outside, and stripped of inconvenient "secondary" qualities, lend themselves readily to mechanistic thought. Useful to science and practice, this sort of thinking found expression also in metaphysics, the primary business of which is, not to subserve practice, but to tell the truth about reality. There resulted the atomic mechanics of Democritus and his later intellectual kin, echoed, again, by Romans incapable of philosophical initiative of their own. After a long interval, and primarily in the interests of physics and astronomy, mechanistic thought revived in the seventeenth century, and in this and the follow-

and when being similarly external to each other, they form a meaningless sequence. Conduct, piety, etc., are in the same way mechanical, when a man's behaviour is settled for him by ceremonial laws, by a spiritual adviser, etc., in short, when his own mind and will are not in his actions, which in this way are extraneous to himself" (Wallace's *Logic of Hegel*, p. 290, "Doctrine of the Notion").

ing century moved to conquest after conquest. Kepler, who replaced the psychical powers moving the planets by "forces," Galileo, who began to resolve the qualitative changes in Nature into changes of quantity, led the way. Mechanistic modern metaphysics, as contrasted with mechanistic departmental science, dawned later with Descartes. True, Descartes (who, be it remembered, could inspire a Malebranche and a Geulinx) seemed to divide the Universe pretty fairly between "Thought" and "Extension." But he kept these dualistically conceived existents rigorously apart. And, though no atomist in the sense of believing in *indivisible* ultimate material units, he proffered a thoroughly mechanistic explanation of the standing of the perceptual world. Astronomic movements, the details, in fact, of all "inorganic" processes and even the physiology of organic life, were conceived on strictly mechanical lines—as illustrations of the phenomena of matter and motion. Note that he accented extension as the main distinctive quality of non-psychical existence. A more modern votary of mechanism would emphasise by preference the quality known variously as inertia, resistance, or mass. He might be also in earnest with a radically mechanistic metaphysics and quite indifferent to that side of Descartes which treats of "Thought." It is part of the irony of things that his category of "mechanism" discloses its inadequacy just when it seems about to triumph.

Why men inclined originally to think in a mechanistic way.

Now it is not difficult to surmise why the old Greek mechanists whittled down reality into atoms and their movements. These atoms are compact of the "primary" qualities which are familiar to us

as extension and resistance; the latter being the basis of the more precise mathematical concept of "mass." These primary qualities, said to reveal matter as it is "in itself," are preferred to all the other qualities which are equally attested by sense. They are preferred, because men are forced to take account of them, forced to be vividly aware of them throughout their purposive lives. Thus "resistance" is always with us. We cannot act upon Nature, and so alter it, save by moving (or slowing or arresting the movements of) bodies. All that the "labour" of the political economist does to things is done by moving bodies, slowing or stopping movements; and all bodies moved or stopped are awared along with that experience which we call "resistance." Whatever other qualities come and go, this "resistance" can always be felt if my body is near enough to touch other bodies, and, when it does not or cannot touch them, there is imagining of what would happen if it did. Inevitably "resistance" gets singled out by *selective imagining* when the earlier concepts of what "things" veritably are come to be framed. And because it is thus prominent, the *solid* "thing" is taken as the type of reality. It was long before even the air we breathe, obtrusive as it is in wind and storm, came to be known as "a form of matter."[1] It did not seem to "resist" movement or impart movement to other bodies with sufficient constancy—could be overlooked in this regard during most of the time as having no practical significance, at any rate for landsmen's lives. This primitive emphasis of resistance reappears, in polished form, in Spencer's

[1] J. B. Stallo, *Concepts and Theories of Modern Physics*, p. 176.

definition of Matter as "co-existent positions that offer resistance." [1]

The source of atomism.

The *atomic* view of this "Matter" is suggested by the fact that very many things can be cut, smashed, or seen to break up, into "bits." The "bits" still further broken up in thought, and supposed to consist only of extension and resistance, are the Democritan atoms. They are conceived to move in all sorts of ways, and in these ways lies the secret of what they can do. Atomism is thus an *imaginal creation*, not of the C.I., but of the finite human sentient who is mastered at last by what his fancy constructs. Mastered, because, as a mechanist, he may come to regard the atom as the source of the very imagining which created it.

The chaos within modern mechanistic thought.

The Daltonian "atom" and the more recent sub-atom or "electron" are only developments of this old-world imaginal theme.[2] The ether, again, about which we shall say something anon, is simply an imaginal "Matter," reimagined to serve new purposes. It was invented, as Poincaré points out, "to escape the breaking down of the laws of general mechanics"—in the face of novel facts. And since purposes vary with different groups of physicists and chemists, the contradictions of ether-speculation, so familiar to critics, result. But competing explanations teem within the whole field of mechanistic thought. "Most theorists," writes Poincaré, "have a constant predilection for explanations

[1] "The conception of Matter reduced to its simplest shape is that of co-existent positions that offer resistance, as contrasted with our conception of Space, in which the co-existent positions offer no resistance" (*First Principles*).

[2] Cf. *Individual and Reality*, p. 111 ff.

borrowed from physics, mechanics, or dynamics. Some would be satisfied if they could account for all phenomena by the motions of molecules attracting one another according to certain laws. Others are more exact; they would suppress attractions acting at a distance; their molecules would follow rectilinear paths, from which they would only be deviated by impacts. Others, again, such as Hertz, suppress the forces as well, but suppose their molecules subjected to geometrical connexions analogous, for instance, to those of articulated systems; thus they wish to reduce dynamics to a kind of kinematics. In a word, *they all wish to bind Nature into a certain form*, and unless they can do this they cannot be satisfied. Is Nature flexible enough for this? . . . every time that the principles of least action and energy are satisfied, we shall see that not only is there always a mechanical explanation possible, but that there is an *unlimited number of such explanations*. By means of a well-known theorem due to Königs, it may be shown that we can explain everything in an unlimited number of ways, by connexions after the manner of Hertz, or, again, by central forces. No doubt it may be just as easily demonstrated that everything may be explained by simple impacts."[1] Why do we tolerate this "unlimited number" of possible mechanistic explanations and the flagrantly contradictory results of many of those actually proffered to us? Why is not the whole bankrupt "category" of mechanism left behind?

Why we tolerate the chaos.

The answer is that one "description" of this sort is as good as another so long as it is not offered as

[1] *Science and Hypothesis*, Eng. trans., pp. 167–8.

metaphysics, and subserves practice. We are in a realm of shades. The positing of homogeneous, relatively independent, externally determined parts, the ousting of secondary qualities so far as is practicable, the *simplification*, in fine, of natural phenomena, aid and abet calculation. Reserved for *use* are quantitative aspects of phenomena such as are measurable and lend themselves to mathematical treatment. Any construction by which such aspects can be utilised successfully marks a triumph. Rival constructions which work equally well are equally justified.

"Description" which must not be mistaken for metaphysics.

In mathematical physics a chair, say, "becomes in thought a set of molecules in space, or a group of electrons, a portion of the ether in motion, *or however the current scientific ideas describe it.* But the point is that science reduces the chair *to things moving in space and influencing each other's motions.* Then the various elements or factors which enter into a set of circumstances, *as thus conceived*, are merely the things, like lengths of lines, sizes of angles, areas and volumes, by which the position of bodies in space can be settled. Of course, in addition to these geometrical elements, the fact of motion and change necessitates the introduction of the rates of changes of such elements, that is to say, velocities, angular velocities, accelerations, and such-like things. Accordingly mathematical physics deals with correlations between variable numbers which are supposed to *represent* the correlations which exist in nature between the measures of these geometrical elements and of their rates of change. But always the mathematical laws deal with variables, and it is only in the occasional testing of the

laws by reference to experiments, or in the use of the laws for special predictions that definite numbers are substituted." [1]

Whittling down quality so that things seem all but mere quantities (if you are alive to what you are doing) involves little risk. As Mill says, if hypothesis "merely divests a real object of some of its properties *without clothing it in false ones*, the conclusions will always express, under known liability to correction, actual truth." But in much current scientific writing there is "falsification" of things as actually perceived, and substitutes, which are imperceptible and unverifiable, are held in honour. So long as these imaginal constructions facilitate prediction or retrospection, or even assist men to grasp phenomena provisionally, it may be, but comprehensively, all is well. These different sorts of inventions are justified then by their success. It does not trouble us that they conflict hopelessly, if brought together in thought. There is no call to bring them together, if you merely want certain results which they produce separately. But, of course, if you want, not merely practical service, but the *truth* about reality, *i.e.* metaphysics, you will at once bring them together and you will condemn the chaos as bad, that is to say, bad in respect of the new interest which is holding you.

There are descriptions that falsify objects.

Philosophically sound physicists and mathematicians, who discuss Nature in terms of mechanism, are aware of the limitations of their task. Thus "the theory called the theory of undulations forms a complete whole, which is satisfying to the mind;

[1] A. N. Whitehead, *Introduction to Mathematics.* Italics mine.

but we must not ask from it what it cannot give us. The object of mathematical theories is not to reveal to us the real nature of things; that would be an unreasonable claim. The only object is to co-ordinate the physical laws with which physical experiment makes us acquainted, the enunciation of which, without the aid of mathematics, we should be unable to effect. Whether the ether exists or not, matters little, let us leave that to the metaphysicians." [1] And again, "The mass and energy with which we deal in physical experiments, and in the mathematical reasoning based on inductions from the experiments, are purely conceptual quantities, introduced to bring order and simplicity into our perception of phenomena. But science talks of matter and energy as though it knew of the realities corresponding to the mental images to which alone these names strictly apply." [2] "The mathematician lives in a purely conceptual sphere, and mathematics is but the higher development of symbolic logic," [3] or, as we should put it, he dwells often in a backwater of the creative imagination, whereas metaphysicians seek to sail on the main stream of cosmic imaginal life.

Mechanics, mistaken for metaphysics, is a "survival of Mediaeval Realism."

Taken too seriously, the mechanical theory is, what J. B. Stallo calls it, "a survival of Mediaeval Realism," [4] since it mistakes concepts, which in this case are mere instruments for the control of phenomena, for the things which they represent and

[1] H. Poincaré, *Science and Hypothesis*, Eng. trans., p. 211.

[2] W. C. D. Whetham, M.A., F.R.S., *The Recent Development of Physical Science*, p. 44.

[3] *Ibid.*, p. 34.

[4] *Concepts and Theories of Modern Physics*, p. 150.

for which, in our thinking, they stand. Sensible experience acquaints us with a quite different world from that, say, of Haeckel, whose metaphysics assumes absolutely rigid causal uniformities embodied in "atomic mechanics." In point of fact "absolutely rigid" causal uniformities are only methodological postulates, not truths displayed to view in the experienced world. Verification of the alleged absolute reign of law is lacking,[1] and must always be lacking. In the second place, writers, like Haeckel, fail to see that their thinking is aloof from concrete Nature as originally perceived. They have forgotten experience, *e.g.* the view from the Matterhorn (Part I. Chap. II. § 7), and take their *imaginal substitutes* for the perceived world as, in verity, that world itself. And this way lie bewilderment and incoherence. The substitutes are altogether too "thin."

The perceived world masks, indeed, a reality which does not, as yet, show fully to us. But it does not mask a reality interpretable as mechanics. It is of one tissue with that *fuller and richer Nature* which lies in the Cosmic Imagination and of which our fragmentary perceptions afford us the veriest glimpse.[2] With that richer Nature are allied indefinitely numerous societies of sentients, major and minor, whose "habitual modes of reaction" correspond, as Prof. Taylor puts it, to the approximate uniformities which we discuss in text-books as

[1] *Cf.* the admirable chapter on "The Meaning of Law" in Prof. A. E. Taylor's *Elements of Metaphysics*, Bk. III. chap. iii. pp. 216–40.

[2] *Cf.* Part III., "Preliminary Observations respecting Nature and Evolution."

"laws." Only the glamour of inherited fiction prevents thinkers from suspecting the truth. Frankenstein has been choked by his monster—the "category" of mechanism.

The mechanistic view, like all narrow categories, is bound sooner or later to show its inadequacy. It says so little, and, after all, reality displays so much! Passing once more from mechanics, an abstract and hypothetical science, to survey the concrete protean world-order, you find that you have been simplifying complex reality in order to deal the more conveniently with some of its aspects.

The Fallacy of Simplicity.

Now it is useful to simplify—for a purpose. You limit attention, *e.g.*, for the purposes of mathematical physics. But you must not limit attention in that fashion for the purposes of the inquiry that concerns us now. Certainly the Cosmic Imagination has aspects which can be discussed, in view of certain ends, *as if* they were mechanical, but it has a wealth of others which do not lend themselves to this mode of treatment at all. There is a Fallacy of Simplicity which we shall do well to avoid.[1] "The science of mechanics does not comprise the foundations, no, nor even a part of the world, but only an aspect of it" (Mach). Mechanistic thought is doomed as soon as we become aware of what experience actually includes. Creation is not an affair of equations.

§ 3. Let us glance briefly at some of the concepts used by mechanistic thinking. It will be seen that they are imaginal creations, not copies of originals to be found in perceptual experience.

[1] *Individual and Reality*, pp. 94–5.

(A) "MATTER." This, like the other typical mechanistic concepts to be noticed, is not a fact which comes to us as a gift from experience. No one has perceived, or ever will perceive, Matter. The idea of Matter is not a copy of anything which forms part of Nature; it is a *Command-Concept* (Part I. Chap. II. § 4), the concept of a "thing" or "things" which are held to obtain independently of our perception and thinking, and to consist of modes of extension and resistance. Sometimes these "modes" are made to "inhere" in an *unknown* substance (etymologically "standing under" them). This unknown substance is a gratuitous addition to the concept. It is, further, a self-contradictory one; since by supposition the substance is at once unknown and yet known to exist and to support its qualities. The majority of mechanists, even of the extreme school, ignore "substance," and we shall follow their example. Enough has been said of the topic in discussing the agnostics.

On some prominent concepts of mechanistic hypothesis. Matter regarded as an imaginal creation.

The fundamental quality accented is sufficiently obvious. Hence "resistance"—the co-existence of spatial positions which offer *resistance*—is emphasised in Spencer's definition of Matter. Hence Mill, also, terms Matter "the element of *resistance* in the sensible world." Bain similarly selects resistance as Matter's distinctive quality. A like thought is present to Newton when he describes *inertia* as a "power of *resistance*, in virtue of which every body, as far as in it lies, perseveres in a state of rest or of uniform rectilinear motion"; but in the case of "inertia" one notes the additional hint that Matter is a "*passive* resister," too hopelessly devoid of initiative to be able to change the state

Matter as resistance and as merely "passive."

Inertia.

into which it is put by influences *extraneous to itself*. The trouble here is that "resistance" inevitably suggests activity,[1] and that inert or passive resisting wears the look of a contradiction in terms. He is a bold man who asserts definitely that the "element of resistance in the sensible world" is passive or inert in the popularly accepted sense of the word. But the statement was made deliberately by the distinguished physicists [2] who wrote the *Unseen Universe*, so much discussed in its day; the rôle of Matter, so they aver, is "simply passive."[3] And this imputation of passivity and implied stupidity and "blindness" is echoed to-day in all journalistic screeds about "brute Matter." Nay, it colours the metaphysics even of a Bergson, whose "inert" Matter seems in the first instance to have been taken over uncritically from "descriptive" science and workaday thought.

"Resistance" cannot be, or mark, a quality possessed absolutely by a unit of "Matter."

It is customary to discuss "resistance" or "inertia" as if it was a quality possessed absolutely and inalienably by the units of Matter. Whatever else may fall away from material things, this quality at least is to preserve a rock-like fixity. Vain is the conceptual decree. The difficulty is well stated by Bradley. Resistance "could supply only the *relation* of one thing to another, where neither thing,

[1] Hence Carveth Read's remark, "Inertia does not mean want of vigour, but the exact contrary; and may be metaphorically described as the inexpugnable resolve of everything to have its own way" (*Logic, Deductive and Inductive*, p. 175).

[2] Stewart and Tait.

[3] "The only real things in the physical universe are matter and energy, and of these matter is simply passive." The truth, of course, is that these "things" do not exist in the physical order at all—only in our thoughts about it.

as what resists, is a separate body, either apart from, or again in relation to, the other. Resistance could not conceivably tell us what anything is *in itself*. It gives us one thing as qualified by the state of another thing, each within that known relation being only for the other, and, apart from it, being unknown and, so far, a non-entity." [1] This objection is fatal to the attempt, otherwise absurd, to convert the abstraction "resistance" into an absolute real.

"Resistance," when we experience directly things in the rough, is embodied in our feelings of pressure and muscular tension. If two wheels, one of paper and one of steel, are mounted on axles, we aver that their "masses," or *quantities of matter*, are different because the pressures and muscular tensions experienced as we turn them are different. The workaday estimate of mass or quantity of matter, as measured by "resistance," grounds basally on this sort of experience. But the mathematical concept of mass cannot refer us to successions of vaguely measurable private feelings. It is required for calculation and it must, therefore, be precise. The mathematician, accordingly, tends to thrust the crude resistance-feelings into the background, turning to them occasionally when he wants a breath of fact after wanderings in his realm of shades. He cannot, *e.g.*, adjudge masses A and B to be equal because, in some passing private moods or conditions, I or you feel them to resist our bodies equally. His test of mass-equality must be available for every one. Thus he says, perhaps, with Maxwell that A and B are of equal mass "if equal forces applied to these

Resistance and the mathematical concept of "mass."

[1] *Appearance and Reality*, pp. 264–5.

bodies produce in equal times equal changes of velocity." [1] But now we are miles away from primary experience. "Force" itself is a "mathematical fiction," not a physical existent; [2] we are in a conceptual world and treating there a relation in a highly artificial way. H. Poincaré, who offers us a definition of mass which he calls "a confession of failure," asserts that masses are "co-efficients" which it is found convenient to introduce into calculations.[3] Here the break with our original experience is very marked. What has become of Mill's vague "element of resistance in the sensible world" and of my experience of pressures and tensions on turning the two wheels? A conceptual device has all but ousted the phenomena which Mill and I perceive in the rough.

"Force" a mathematical fiction.

When I want to "introduce into calculations"

[1] *Matter and Motion*, p. 40.

[2] *Cf.* Bertrand Russell, *Principles of Mathematics*, pp. 474, 482. *Cf.* also Somoff cited by J. B. Stallo, *Concepts and Theories of Modern Physics*, p. 167. "A material point is moved by the presence of matter without it. This action of extraneous matter is attributed to a cause which is named force." Force is known and measured only in the movements which it was invented to account for. Lagrange defines Force as "*that which* moves or tends to move a body." Mach labels Force "any circumstance of which the consequence is motion"; he rejects, of course, a something supposed to "lie latent in natural processes." Hegel has some telling observations on the explanation of a phenomenon from a Force (Wallace's *Logic of Hegel*, p. 213). "All that is specified as contained in Force is the same as what is specified in the Exertion [of it], and the explanation of a phenomenon from a Force is to that extent a mere tautology." Force, we may conclude, as product of the "mass" and the "acceleration," another of its definitions and the most "mathematical," is just a conceptual tool or device.

[3] *Science and Hypothesis*, p. 103, Eng. trans.

the mass-constants of two bodies, I must make appeal also to a third, thus showing once more what a relative term this working concept of "mass" really is. I can then find what acceleration results for No. (3) when No. (1) is at a certain distance from it and what acceleration when No. (2) is at the same distance. Then the "mass" of No. (1) will stand to that of No. (2) in the ratio of the said accelerations, and the "ratio" will hold good even if new bodies (4) and (5) are introduced (or approximately so, for experiments are never such as to show that absolutely rigid uniformities obtain). Now convenient as it may be, for purposes of calculation, to say that the "mass" of No. (1) is three times that of No. (2), "mass" itself clearly is no ultimate in a supposed universe of mechanics, but a useful conceptual entity, presupposing *relations* of bodies, actual or possible.

Mass constants and ratios of accelerations.

A recent view of mass, in connection with "electric" theory, regards it as a function of velocity, itself an abstraction. A sub-mechanical "ether" is implied. Another mechanistic creed, going beyond primary experience, reduces everything to material systems with "negligible mass" but in a state of tension, and conceived on the analogy of a string or thread. All such mechanical models belong to the conceptual worlds which inventive humans construct. These need have no counterparts in the cosmic imaginal life, and, when not useful for calculations, are not worth study. A walk in the country affords a much fuller insight into what the world actually is. The "models" are too aloof from the original to have a value outside practice.

How "descriptive" science takes liberties with "mass."

No body existing by itself would be, or have,

"mass." "Mass" refers us to a certain behaviour of bodies in the regard of one another; an active property, the explanation of which will be found, in the last resort, to carry us beyond mechanics into psychics.

The secret of the behaviour of bodies lies altogether beyond mechanistic "description."

The sensible data in this conceiving are moving things in the setting of resistance-feelings in which some of them appear. And these things, as indeed the whole physical order, we know only from the outside. *What now of the behaviour of these moving things*—to what ultimately real factors is it due? That, we may affirm with certitude, will never be explained in a mechanical way. It will be understood when we allow that the physical order masks an indefinite number of minor sentients or psychical lives, on whose relations the surface-phenomena of this order depend. The riddle of these relations is not to be solved merely from the outside. But it would be solved by any one able to grasp the situation from the inside as well; by one who was aware of the "teleologic" activities of the minor sentients implied. We humans perceive a well-staged play, but are not allowed to penetrate, save in fancy, behind the scenes. Hence all our makeshift "mechanical models" and the jargon connected therewith.

Impact.

(B) IMPACT is a notion indispensable for the conceptual scheme of masses, atomic or other, *externally related* in space. In the cruder versions of the scheme impact is the only means of "transferring" the movements whose "sum" is said to be constant and whose redistribution among the masses *is* causation. There are no pulls, only

pushes. Even Newton (who was a mathematician, not a metaphysician) was loth to allow that his "hard, massy, and impenetrable" atoms or mass-particles act at a distance as the law of gravity, *stated as a feature of a mechanically conceived world*, suggests. He would have been glad to regard gravity as a derivative effect due to pressure or impact.

Impact is vital, in fact, to a creed which first isolates masses and then requires any given mass to be determined by masses *extraneous to itself*. But this entire mechanistic scheme with its external relations is only an imaginal creation of certain men. *The actual world is, not a collection or aggregate of mere discretes, but a psychical continuum.* And a "thing" in a psychical continuum need have no sharply defined frontiers. If it *seems* to work "at a distance," this is because it is really present where it works. Thus the Sun is in the grass and my brain as well as in the place which interests the astronomer. In the complex of psychical appearances which is called "my experience" there is no abrupt division of any one appearance from the rest: there is compenetration in commingling reality. There is a like, though far less intimate, compenetration among the "things" which we detect in the continuum of Nature. The radically isolated existents of the mechanists are not to be found.

Why so-called "action at a distance" occurs.

Impact conceived as an event in which an entity motion is "transferred" from one "hard, massy" extension to another, which is passive till the transference is made, creates amazement rather than satisfies thought. It is accepted, no doubt, because familiar events—one billiard ball hitting another—

Impact is a name for an event raising a grave problem.

seem to illustrate the transference. But, after all, when we ask *why* the billiard ball, which is hit, is set in motion, we find that familiarity with the surface phenomenon does not provide a solution of the problem which it presents!

Lesage's theory of gravitation overlooks the difficulties raised by impact.

Lesage's physical theory of gravitation illustrates the prevalent view that "impact" is more intelligible than "action at a distance." His view supposes indefinitely numerous particles or "ultramundane corpuscles" which dart in straight lines from unknown cosmic regions in all directions, some of them hitting aggregates of larger particles—the masses that gravitate. These masses, screening one another partially from the bombardment, are pressed or pushed together with a force varying inversely as the square of the distance, owing to the excess of blows received on their unshielded portions. It is not stated whether sub-particles are hitting the "ultramundane corpuscles" so as to account for their peculiar behaviour, but, on the principle that small fleas have smaller fleas to bite them, such sub-particles might be presumed. When the total demands of physicists for particles, "corpuscles," "electrons," "spherical grains" for the ether and so forth are considered, it excites surprise how a space-world, which is probably finite, contrives to find the accommodation required.

Lesage's trust in impact is quite misplaced. It is, in truth, an insoluble problem how one mass-particle, impinging on another in a mechanical world, contrives to "transfer" its motion. But we need not dwell on the problem. No one has mastered it—no one ever will. Nor is it needful to

do so. There is no independent mechanical world: it is a product of the play of human imagination.

Causation of the mechanistic type perishes, of course, with its creed. But let us urge here in a general philosophical regard that a thing is never determined solely by something else. Even if it could be shown that a given thing "does nothing" unless an externally derived appulse reaches it, *what it does then* will be in part its own act. This we shall see later when we come to consider the relations of the sentients which are masked by the physical order.

Nothing is ever determined solely by something else.

(C) "ENERGY." (Cf. also Part I. Chap. II. § 9.) "Energy" is supposed by some to be allied with a "passive" Matter or mass. This was the belief of Stewart and Tait and their followers. The conservation of Matter and the conservation of "Energy" were the foundations of their conceptual scheme of Nature. We have just indicated an objection to this kind of thinking. There is no Matter available for the partnership. Matter is our own imaginal creation.

"Energy" is best considered apart from this suggested alliance. Indeed, in the view of many writers, a world-trio of "Energy," Space, and Time suffices for all needs, scientific and philosophical alike.

The plain man is inclined at the outset to accept an entity "Energy." Does he not read in Power Companies' reports that a certain "amount of Energy" has been sold, and is he not sure that

Is "Energy" an entity in its own right?

cheques are posted in return for something? And thinkers, who write books on "Energy" and even attempt to explain all reality on the basis of "Energetics," confirm him in the belief that "Energy" must be an entity in its own right. There is talk of the "infinite Energy" whence all things proceed; and this "Energy," it is added, is present in innumerable modes or "transformations" to his sensible experience. So far, so good. But disillusionment is coming. The sceptic suggests that "Energy" seems elusive, that only the "transformations" are in evidence, and that these, in physical, chemical, organic, and psychical phenomena, are *different* one from another. "It"—"Energy" the magician—is always dodging us behind disguises, in colours, sounds, heat, chemical combinations, emotional stir, digestive and circulatory occurrences, and what not. Would it not be well to ask world-builders what they mean when they talk of "Energy"? Perhaps they are somehow aware of it, in which case they are able to say what it is in contrast with what it is not. Let them, in short, define it.

Attempts to define "Energy."

Now "Energy" is betrayed by this definition. It is "capacity for work," or, again, as Ostwald puts it, "Energy" is "everything which can be produced from work or which can be transformed into it." Present in a hypothetical system shut off from the world at large it would be quantitatively constant; and, as things are, leakage of it from one system implies always equivalent gain to another. Note, however, that the gain in the case of many transformations has to be labelled "potential Energy," as when plant organisms are held to "store up Energy" derived from the sun or when men place a monu-

ment, having "Energy of position," on a hill. We are apt to regard "potential" as actual "Energy," held somehow in leash, and this way lies trouble.

Now an entity which can be discussed quantitatively in terms of units of work is obviously of high value for calculations in our dealings with the physical order. And even if there is no such entity in fact, it will be well, if circumstances lend themselves to the policy, to invent it. It can be bodied forth—in moments when it seems too unsubstantial—with our vague feelings of general organic happening; with sensations, not merely muscular, such as accompany our active life. But otherwise it will have *no fixed quality and, just because it is our conceptual creation, it will never be detected in the pure perceptual phenomenon itself.* Thus, however patiently I label the phenomena of Nature "manifestations of Energy," I am never in a position to show sceptics *where*, in all these protean manifestations, "Energy" is actually observed. And in defining "Energy" I take refuge in such terms as betray unmistakably the conceptual origin of this exceedingly interesting and effective instrument of thought.

"Energy" is an imaginal creation.

"Energy," in short, is an imaginal creation which is justified by its practical success.

"Popular writers," observes James,[1] "often appear to think that 'science' has demonstrated a monistic principle called 'energy,' which they connect with activity on the one hand and with quantity on the other. So far as I understand this difficult subject, 'energy' is not a principle at all,

James on the practical worth of the concept.

[1] *Some Problems of Philosophy*, note, p. 206.

still less an active one. It is only a collective name for certain amounts of perceptual reality; when such reality is measured in definite ways that allow its changes to be written so as to get constant sums. It is not an ontological theory at all, but *a magnificent economic schematic device for keeping account of the functional variations of the surface phenomena.*"

It is highly convenient.

"Energy" is a pleasant concept to work with, if you want to be free from the difficulties of the classical mechanics, to forward calculations admirably, and, also, to avoid admitting, if you are interested in philosophy as well as practice, that the Universe is a psychical reality. True that in modes of non-kinetic "Energy," such as the "Energy of position" of a mountain-tarn or of a monument set on a hill, the *equivalent* of the transformed kinetic "Energy" seems far to seek. "Potential," like "virtual," marks a descriptive device, and cannot denote reality which has simply "gone to ground." Potential "Energy," as Mill was quick to see, is not an existing fact, but "a name for our conviction that in appropriate circumstances a fact *would* take place"—a very different matter. But this elusiveness of "Energy" in its "potential" domain does not disturb the practical worker. "Energy" is equally elusive, as we have seen, even in those kinetic phenomena which are sensibly perceived.

But it is well not to take it too seriously.

The monistic view of "Energy" has to reckon with qualitatively different phenomena in both these kinetic and non-kinetic fields. *Where*, then, is this "one" active principle which always escapes our gaze? Useless even to seek to find it. It cannot, as we saw, be defined in such a way as to guide those

in quest of it. H. Poincaré only yields to necessity when he asserts that "of the principle of the conservation of Energy there is nothing left but an enunciation — *There is something which remains constant.*" [1] And he adds that the principle itself is "merely an empirical generalisation whose validity extends only to these orders of phenomena of which it has been shown to hold good by exact experiment; or that at the most it is an inductive generalisation which states that wherever one form of physical energy is transformed into the other, the *quantity* of the second form is equivalent to that of the first." On this showing, "Energy" (which, at the outset, so impressed our plain man) is merely "*something*" which has multiple modes transformable into one another in quantitatively stable ways. Import this view into philosophy and you have a modified agnosticism, the claim of which to appropriate the term "Energy" is hardly made out. The term "Abracadabra" might be substituted. And so far as calculations are concerned, it would serve as well as any other.

But belief in a monistic "something" seems doomed. The "something" is not a verifiable existent.

"Potential Energy" again. A conundrum to test phrases.

Let us test current phrases rather brutally. What happens when "potential" passes into "kinetic Energy"? We have the passage of "our conviction that in appropriate circumstances a fact *would* take place" [2] into an active form of "some-

[1] *Science and Hypothesis*, Eng. trans., pp. 127–8.

[2] *Cf.* Mill's perfectly just criticism of "potential Energy," already cited.

thing!" It seems almost cruel to press our advantage. But these monstrous results are inevitable if you forget that "Energy" is a working concept invented for practice and treat it as an ultimate stuff of which the world is built.

The cult of "Energy" does not, of course, serve to explain why *this* particular mode of "Energy" is transformed into *that*. It evades the basic riddle of transformation which concerns quality. It urges that, along with the changes of the "something," quantitative uniformities are to be noted, as in the case of Joule's law: a generalisation well worth keeping in mind during tangled discussions of this sort. And the *postulate* (not axiom) of the conservation of "Energy" bids us expect to find such uniformities in the cases of most transformations of which we are likely to take account. It must not be pressed too far, *e.g.* when we come to consider what happens in the brain when conscious processes influence body. In fine, it must be used, not abused, and suspected without hesitation whenever experience seems hostile. A rigid law to the effect that the sum of "kinetic" and "potential Energy" (or "Energies") is strictly constant is not required. There would be no means of verifying it. And, as we have seen, the "Energy" contemplated by the law is not a reality outside our conceptual thinking.

The postulate of the conservation of "Energy."

The "Energy" talk resembles a mist which hangs over an unseen town and represents in some fashion its outline. The mist is not the town itself; on the other hand, it exists in its special shape only because the town is a reality underneath. We can

The conservation of "Energy" reconsidered in the light of metaphysics.

even discuss certain broad features of the town by feigning that it is present to our perception as the mist.

Now "Energetics" is interested primarily in the mist; metaphysics in the town underneath.

The town is the psychical continuum of reality as upheld in the C.I. The transformations here are qualitative: quantity is so much of quality. There are *more or less regular or stable equivalencies* between features of contents that go and features that come: the disappearing contents in a change are balanced by newly appearing contents in an ordered manner. *This, and not the conservation of a fictitious "sum" of "Energy"-quantities, is what obtains in the Cosmic Imagining.* And the contents thus appearing and disappearing are not merely "one," but also indefinitely *many.* What they are and how they stand to one another in the detail only a superhuman power, able to aware Nature from the outside and the inside alike, could know. And if later we submit some general account of the situation, we shall do so with a sense of being unable to say nearly enough.

The ultimate "principle of movement" is what we have termed, not "Energy" but, imaginal activity. This, at least, is no surd, for we have an immediate experience of it and, also, of its creative possibilities in ourselves. At bottom, all activity is conscious imagining, whether of static or changeful content. Note that any content-change due to this activity implies what is symbolised for us in the "conservation" feature of the doctrine of "Energy." Symbolism in terms of "Energy" which is of value.

In a psychical continuum any content-change present at A is also present at B and C: anything is where it works, and in a psychical continuum it never works at an isolated point. It cannot come and it cannot go without involving in its fate "correlated" comings and goings. No "Energy," urges the symbolism, is lost, but simply "takes on a new form." The "correlated" phenomena express the fact that things, in important respects, are functions of one another and belong to a psychical continuum. On the other hand, though conservation of "Energy," thus interpreted, stands criticism, we cannot suppose that reality is such that *additions* of "Energy" are never possible. Anything of this kind is possible in a Universe of which the foundations are imagining. And an account of the origin of the time-process, in our corner of reality, cannot regard the symbolism of mere "Energy"-conservation as sacrosanct. But to continue this discussion profitably would be to attempt an account of the beginnings.[1]

"Correlated" modes in the "conservation" of "Energy."

"Energy," viewed as the stuff of which things are made, no longer interests us. But the symbolism of "Energy" will task us yet again and again.

The ether an imaginal creation.

(D) THE ETHER. The ether of mathematico-mechanical hypothesis is an imaginal creation. It was invented, in fact, in Poincaré's words, to avoid the breakdown of the laws of general mechanics. The old kinetic scheme was creaking badly and unable to work in certain directions at all. To cite the testimony of another man of science, Prof. Macdougall, "A great many of the physical phenomena about

Why invented.

[1] *Cf.* Part III. Chap. IV., "The Creative Appulse."

us do not in any way suggest that they are of the nature demanded by the scheme: *e.g.* all the phenomena of light, of electricity and magnetism, of gravity, of chemical attraction and affinity, of latent chemical energy; and the long sustained effort of the physicists to bring these into line with a scheme was only rendered in any degree hopeful by the invention of the ether, by making it both matter and non-matter, and by assigning to it a number of properties which are quite incompatible with one another; for example, it is to be a perfect fluid, continuous, imponderable and frictionless (which is itself a limiting conception achieved by taking away from the notion of fluid several of its essential features), and this perfect fluid is to be absolutely rigid and elastic. Yet even when thus described, regardless of its logical inconceivability, the ether fails to bring into the kinetic scheme of things the facts of gravitation and of chemical affinity."[1] The invention, accordingly, has failed to merit the praise accorded to a successful "description."

This heroic device of an "ether," brimful of inconsistencies, does not even provide for all the facts.

Now mechanical or "sub-mechanical" models are continually being constructed with this ether, and unfortunately, to a great extent, the inventors *forget that they are working in a conceptual world and tend to regard the models in a metaphysical way as copies of fact.* This tendency is well combated by Professor Louis More in an article on "The Metaphysical tendencies of Modern Physics."[2] Once again I will leave a typical scientific worker to speak for himself. "These metaphysical hypotheses progress from the simple to the complex. Each new fact dis-

Pseudo-metaphysics condemned.

[1] Macdougall, *Body and Mind*, p. 213.

[2] *Hibbert Journal*, July 1910.

covered adds its quota to the irreconcilable and conflicting properties of the ether and the atom, and these invisible links of the universal machine grow more and more bewildering and complicated until the whole construction falls in pieces. Nor is this all: the scientist forgets he is building toy houses, and ends by believing in their reality. Even if hypothesis does not carry him so far, it certainly has this effect on others who accept the dogmas of science without discrimination." The ether, in short, is (1) an imaginal creation, (2) a creation inadequate to the facts, and (3) misunderstood by some of its inventors who are metaphysicians unaware of their procedure.

The ether must be rejected.

Philosophical career of the ether; its origin and aspirations.

Aristotle's ether was a celestial matter, permanent and favoured by circular motions, and this again seems to have had its ancestry in the mythical upper air of folklore. The ether of to-day is similarly *our old friend Matter reimagined so as to support a new mechanics or sub-mechanics*, as it has actually been termed. Its main business originally was to "undulate" for the purposes of a light-theory, while occasionally, it was suspected, it slowed down the velocity of a comet: thus showing that resistance to movement accented in the concept of ordinary Matter.[1] But for many years it has been expanding towards world-dominion. Ordinary matter has been explained as condensed ether. More recent views reduce it to peculiar happenings at certain points of this ether, "vortex motions,"

[1] But in any case, if the ether can be thrown into *waves* that are propagated from a point of disturbance, it has *parts which resist one another*, whether it resists the motion of ordinary physical things or not.

"torsions," "strains" and so forth. In derivations of this order Matter is made to pre-exist to its alleged birth, since the vortex motions, etc., are obviously ideas borrowed from features with which ordinary mechanical conceptions deal. A certain poverty of invention is revealed. This borrowing from the behaviour ascribed to ordinary Matter is amusingly illustrated by one theory of the constitution of the ether which has stirred thought. I refer to the view that the ether consists of closely set spherical grains of more or less changeless shape and size, subjected to an enormous pressure, and that it contains ordinary Matter as its regions of diminished mass. In this case the model is obtrusively mechanical. It may not have been intended as a gift to metaphysics. But in this case heaven alone knows why it was put together at all.

Ether-theories by which Matter is made to pre-exist to its birth.

It is obvious that spherical grains, which occupy space and resist other grains that press upon them in the cosmic "crush," are replicas of the resisting-extensions in which the old-world mechanists put their trust.

The so-called electric theory of Matter is merely a form of these extraordinary hypotheses which seek to explain a world of supposed mechanics—by sub-mechanics! We recall how, Mendeleef's periodic law prompting and the old "massy" *continuous* atom being already overtaxed, the dividing of the traditionally indivisible atom began. Later, the Electron, having only a fractional part of the "mass" of the time-honoured hydrogen atom, was invented—to account, it was pointed out, for a

The electric theory of Matter.

batch of very interesting and novel phenomena. "The atom is a system of electrons" was the cry, though some of the more wary innovators enjoined caution.[1] And what is the Electron?

Is the Electron merely a tiny detached mass-particle?

Clearly if the Electron is only a tiny mass-particle, like the atom in which Democritus, Dalton, and Newton believed—an abstract resisting-extension—mechanical hypothesis holds its ground. We do not escape from Matter by supposing that its bits are smaller than was thought before. And the Electron (which might be likened to the ghost of a defunct billiard ball which has left its secondary qualities, colour, etc., behind it in the grave) is only a very tiny mass-particle moving in space.[2] But what if this Electron is not a detached mass-particle existing in its own right, but a "mobile strain" or some other local singularity in the ether? We shall have escaped from the ghost of the billiard ball, it is true, but what are we going to reach in its stead? Well, Larmor asserts boldly that the Electron must be "in whole or in part a nucleus of intrinsic strain in the aether, a place at which the continuity of the medium has been broken and cemented together again (to use a crude but effective image) without accurately fitting the parts, so that there is a residual strain all round the place." The ultimate element of Matter is an electric charge

Or is it a "mobile strain" or other local singularity in the ether?

[1] *E.g.* Sir O. Lodge, *Electrons*, p. 135: "Who knows that the atom is wholly composed of electrons?"

[2] "If an electron is depicted as a speck one-hundredth of an inch in diameter, like one of the full stops on this page, for instance, the space available for the few hundred or thousand of such constituent dots to disport themselves inside an atom is comparable to a hundred-feet cube."—Sir O. Lodge, *Electrons*, p. 201.

or "nucleus of permanent aetherial strain." Clearly this notion of "strain" and the images connected with it are borrowed from our reflections on so-called sensible "matter" which the electric hypothesis seeks to "explain."[1] And there is superadded an appeal to the ether, that hotch-potch of incompatible attributes which we have condemned before. Bankruptcy of the electric theory.

The *electric* theory of Matter is a strange outcome of the old Greek discovery that insignificant bits of stuff called *amber*, when rubbed, attract light and dry bodies. It appeals, however, to the plain man who, despite the frown of science, believes that he *sees* "electricity" (or shall we say, by a monstrous licence, "amberity"?) in the electric light, and is pleased to think that it may be everywhere else as well. An enterprising lady novelist, who also enjoys this simplifying of things, has written a romance in which Life and apparently her Deity are identified with electricity. What a magic attaches to a name! Would the attempt to reduce everything to manifestations of "amberity" prove equally enthralling? or is the name a matter of indifference and the mental picture of a Universe of crackling sparks irresistible? Why not an "amberity" theory of Matter?

A system of "Energetics," made to work with genuine efficiency for *practice*, would free us from absurdities such as these. But it would not, as we saw, close with reality sufficiently to satisfy philosophy.

[1] "So-called," because, as we have seen already, ordinary "Matter" itself is not sensibly perceived, but is a conceptual invention.

The error of the metaphysical physicist is not the inferring of unperceived happenings, but conceiving these as mechanical.

What, however, of the unquestioned empirical data? Do not these lead one to infer unperceived happenings which are *symbolised* in statements about "Electrons" and so forth? This question raises a further and a very important philosophical issue. Evidence of the character cited cannot possibly be overlooked. The fundamental error of the new metaphysicians of science is not that they infer unperceived realities, but that they *conceive* these realities as aspects of a mechanism. There is

A golden rule.

a golden rule applicable to all such excursions beyond the limits of our existing perceptual powers. Incompletely perceived phenomena or appearances "must be supplemented on the lines which appearances dictate. *An inferred unpresented region* [*of Nature*] *must be conceived as not essentially different from the contents of our sentient life.*" [1]

The right kind of "imperceptibles."

We do not require inference to "imperceptibles" which, by definition, could never form the content of any conscious experience, divine or human. We want "imperceptibles" which are merely cut off from us by the existing limitations of our powers, being of such a character that they may well be present to superhuman imaginal experience, or even, in later stages of our careers, to our own expanded perceptions.

In the history of science there is much made of the appeal to experience. Let thinkers show that they are in earnest with this appeal. Let us get rid of the false "imperceptibles." "Existence-which-cannot-appear-in-any-experience" is the veriest fiction. Verification of its alleged reality is impossible.

[1] Cf. *Individual and Reality*, p. 108.

The right sorts of "imperceptibles" are merely things which we cannot at present perceive, like the further side of the moon, the bacilli in Central Africa, or the intimate relations of those minor psychical existents which are at once revealed and concealed by the physical order. Respecting these latter, we have shown elsewhere at length how the inferences run.[1] Those who desire to probe the mysteries of *Nature*—not of the mere conceptual invention "Matter"—will have to busy themselves considerably with the story of these subordinate psychical existents or "minor sentients." To this quarter, for instance, belong the happenings at present symbolised in the antics of imaginary "Electrons." And here, also, take place occurrences which must bulk heavily in any later account which we may be able to give of how *Homo sapiens* influences, and is influenced by, his body. And so on.

11. The C.I. and "Things"

§ 4. The "Things" of creative evolution, what ever else they are and do, are not timeless, but last a while. They are efforts toward stability amid the flux; are attempts of reality to crystallise and harden, as it were, into fixity in the very heart of change. The laws of natural causation are relatively stable habits of relatively stable related "Things" of this sort. But since *creation* concurs with *conservation* in the time-process, the "Thing," even when genuinely real in the C.I. and not a mere invention, prompted by convenience, of our making, "Things."

[1] *Individual and Reality*, p. 100 ff.

aims at a stability which it cannot maintain. In altering amid the swirl of change it may perish, and, if it succeeds in enduring, it will do so only at the price of being transformed.

"Things" are not occult "substances."

"Things" are of one tissue with the "qualities" which we assign to them. Thus a planet is a real "Thing" in the natural order which exists in the Cosmic Imagining. And, though it comprises much more wealth than we humans can perceive and isolate abstractly as its "qualities," it is still of a piece with its very partial aspects which do fall within our knowledge. It is no occult "substance" supporting separate "qualities," all of which are artificial creations of analysis; it is an idea or *imaginal complex* within a world-order which contains indefinitely more wealth of the like imaginal character. Of this wealth all we finite sentients partake according to our grades.

The self-transcendence of "Things."

Now inquiry shows that the qualities of "Things" are not merely private possessions of the "Things." Thus sugar has "its" qualities in great part because it exists in a solar system with contents which behave just as they do. Were the sun's heat increased much, or were the character of the earth radically altered, sugar would alter too. This is what is meant by the saying that "Things" with their qualities or properties are functions of other "Things," and by the further saying that any given "Thing," which common-sense takes over as self-sufficient and as existing in its own right, is in truth "self-transcendent." To understand the "Thing," we are compelled to go very far beyond the sphere in which, at first, it seems

self-sufficient. This truth has been accented, though probably over-accented, by certain idealistic systems which resent plurality. Things have been termed "unreal" because they are thus "self-transcendent." But why regard anything as "unreal" just because it has conditions which, in part, lie beyond itself? The architrave of a temple presupposes the supporting columns, but it is not less real a fact for that. The point, however, now relevant is that nothing stands absolutely alone. Observation bears out the view that all things "in one another's being mingle": a view, of course, which falls satisfactorily into a world-scheme for which the Cosmic Imagination is the supreme all-inclusive reality. It is not yet clear, however, to what extent subordinate "Things" possess freedom within this principle. The answering of this question will take time. It will be commenced by our agreement as to what we mean by recognising that unity of qualities—the "Thing." Further, thinking of the changing sensible world in a practical regard, we always assume that there is *a genuine causal influence between more or less distinct and relatively independent "Things"*; and it will be necessary, therefore, to undertake shortly a preliminary discussion of causation. Many idealistic thinkers have thrown causation overboard, and it may be that, if we succeed in salving it, we shall repossess ourselves of it in a novel form.

Self-transcendence does not imply unreality.

How far are "Things" independent within the C.I.?

Are they such as to have causal relations?

Even a solitary-looking quality, such as sky-blue, becomes a "Thing" as soon as it holds my interest. Any statements made about it concern a somewhat that is taken to *endure*, as distinguished from the varying "predicates" ascribed to it. Is this

Specimens of "Things" insentient and sentient.

enduring unity thrust on the phenomena by us or is it present in the phenomena themselves? Consider types of alleged insentient "Things"—knife, diamond, cloud, sand-heap, the Matterhorn, a motor-car, a field, the Earth, etc., and make clear to yourself what you have in view in each case. Consider, again, that type of the sentient "Thing" which is called Self; the "Thing" that claims a fixity despite the swirl of its ever-changing modes. You have here a striking case of the "effort toward stability" of which we spoke just now; an effort which, in creative evolution, is foredoomed to corrosion by change. The "Self-Thing," which claims or strives to endure, discloses process and instability in fact. And we know, further, that this or that "Self-Thing," allied with a given body, can be dethroned; nay, that alternating and even co-conscious "Self-Things" can show in connection with this one body, and that the position of the "Self-Thing" is, therefore, very far from being a stable one.

The "Self-Thing."

We are not yet ready to deal fully with the problem of the "particular self," but we are sure of this. The unity of a "Self-Thing," whatever else it implies, is that of an *end-seeking*, teleological, or purposive whole, whose realisation is expressed in the direction of its life, and whose unity is the more pronounced the more coherent and ordered are its purposes. "He is hardly a person"—we say of a man without genuine initiative and coherent purposive activity. A "Self" presupposes the deeper underlying continuity of the Universe, but emphatically also this teleological structure of ordered interests. A centre of conscious life does

What a "Self-Thing" implies.

not necessarily comprise a "Self," and, on the other hand, as we now know, may be the theatre of several alternating or co-conscious opposed "Selves."

Now this "teleological structure" of the Self has been made by some to explain the unity of the insentient "Thing" as *perceived*. And thus.

Teleological rendering of a "Thing" as perceived.

Take the unity of a body, *e.g.* a pillar or table. Taylor's words are, "We project *in imagination* into the sensibly continuous inanimate mass the same kind of teleological unity which we find in our own mental life." [1] The body is felt now, as if it was acting, in the regard of some interest of ours, as a unity concentrated to a point like ourselves. Consider, again, my motor-car. This is "one," in so far as I can look upon the events of its career, *as if* they are events in the life of a purposive being in my service. The car's "qualities," of course, consist not merely of standing facts, but of what will probably happen under conditions that *may* arise. Indeed, the unity imagined by me is a unity of actual and possible qualities, and of its past characteristics as well.

A. E. Taylor's explanation.

To continue: "If we can think of the things' qualities and the law of their connection as standing to one another in the same way as the detailed series of acts embodying a subjective interest of our own, and the interest itself which by its unity confers a felt unity on the series, we can in principle comprehend how the many qualities belong to the one thing. In that case the thing will be one 'substance' as the embodiment of an individual experi-

[1] *Elements of Metaphysics*, p. 126.

ence, determined by a unique subjective interest, and therefore possessing the unity of immediate feeling. Its many qualities will 'belong' to it in the same sense in which the various constituents of an experience thus unified by immediate feeling are said to 'belong' to the simple experience they constitute." [1]

Inadequate.

This is to say that imagination, in private centres of experience, continues to fashion the order which it brought originally. But this private imagining seems to create for us two sorts of perceived "Things": (1) "Things" which are outlined merely for our convenience, and (2) "Things" which answer to genuine divisions in Nature as well. Thus the sand-heap on the sands and the Matterhorn are both "Things" of value in respect of my interests, but they are not carved out along lines which correspond with divisions in Nature. On the other hand, there are "Things" which have a high degree of endurance, of coherence, and limits, which I recognise to my profit, but certainly do not invent. I carve the Matterhorn out of a larger mountain-block and impose this division on Nature. But this diamond is a "Thing" which may exist stably for aeons, whether I recognise its "Thing"-hood or not. If it is cast into the sea or desert, it will remain a relatively independent existent sharply contrasted with its surround. Similarly the mica, felspar, and quartz in this block of granite can be extracted and will endure stably with no leave whatever from me. A bit of platinum or "atom" of argon are stubborn "Things" of this sort; "Things" of our fashioning in so far as they concern ourselves, but also something more; to wit,

The two sorts of "Things."

[1] *Elements of Metaphysics*, pp. 138–9.

actual "Things" which maintain themselves, independently of our perceptions, in the "looseness" of Nature.

"Looseness"

We cannot hope to understand imaginal Nature without allowing fully for this "looseness." And we have to be on our guard against the subjectivism which a "teleological" theory of the "Thing" may introduce covertly. "Things" are not only *our* thoughts; and there are "ends" realised in evolution at large.

Continuity and "Looseness"

Continuity in Mathematics.

We are by this time quite clear as to what *we* mean by continuity. Etymologically regarded, this word reveals metaphor. The metaphor is that of a holding together—a physical metaphor which can be refined by the uses made of it. Now we are not concerned here with the mathematical concept of continuous quantity, "that between any two elements or terms of which there is another term." In this byway of abstract thinking multiplicity overrides unity. Nor, again, are we accepting here the continuity of James, to wit, that "anything is continuous when its parts appear as immediate next neighbours with absolutely nothing between." This is, indeed, the sense in which the parts of the old atom were continuous; the said atom becoming discontinuous when it was treated as a system of electrons separated by enormous relative distances. We must go further.

Continuity as defined by William James.

We regard Nature, and, indeed, all reality, as

The two aspects of our view of continuity.

continuous (1) Because its "elements" or "terms," whatever they are and however they behave, are present together to *con*scious grasp, to the co-awaring Cosmic Imagination. This compresence constitutes continuity in its most fundamental form. (2) But the so-called "terms," as we have seen, are not shut off radically from one another within the all-embracing consciousness; they "mingle in one another's being" or interfuse so that there never exists a "term" which is quite uncoloured by the rest of the system in which it appears. This is not to say with Bergson that true continuity implies "at once the multiplicity of elements and the interpenetration of all by all."[1] To assert the interpenetration of "all by all" in the creative process seems to go too far.

"Looseness."

Within the fundamental continuity or unity, and in spite of the compenetrations, we have to allow for innumerable partial insulations, disjunctions, conflicts, and breaks of all kinds. And a recognition of this truth brings us to the consideration of "looseness."

"Looseness" (a term suggested by Hume's use of "loose" as applied to the contents of our experience) refers us to the relative independence of "Things," or content-complexes within creative evolution, the continuity of which is not that of a "Block-Universe," having rigidly determined detail, but that of a plastic whole, the sub-phases of which enjoy a certain freedom of their own. It is easy to conceive how this can be in an imaginal time-process. When, in my small way, I imagine a romance or poem, my

[1] *Creative Evolution*, English translation, p. 171.

central purpose controls the inventive process as a whole, but I find also that, to a great extent, the details show independence in their changes, that there are "powers and potencies" which I confront, and which are used, rather than owned, by me. The C.I., in the creative process, is in like case. Multiplicity has its swing and shows brokenly as innumerable tendencies that are sundered and often clash. In the early stages of evolution this "looseness" of parts and collision of initiatives give rise to a veritable chaos. And even organic evolution and History furnish, as we shall see, abundant illustrations of the riot of "looseness." Only faith can regard reality as the manifestation of a unitary power, whose details express an *unbroken* life. The evidence is overwhelming that in creative evolution the "parts" have considerable free play within the dynamic of the whole World-System concerned—in a word, are "loose."

Interpenetration and "looseness"

The interpenetration of "elements" in such a World-System is not one of "all by all" on Bergsonian lines, but of "each by much else"; each "element" or complex of "elements" having its own sphere of influence and being within different combinations of other such spheres of influence. One "atom" (or rather that which is symbolised by this concept) penetrates another at any distance in the physical order, as the phenomena, labelled gravitative, show. Each "distant" atom must be held as present somehow where it works, and is thus not cut off in fact from its remote fellow at all. Its sphere of influence is of amazing extent. Such penetration shows that Nature, however discrepant and divided against itself, is still in some fashion a

continuous whole; a continuity of "loose" parts. But it does not, of course, show that every "element" of quality is mingled with every other. Even the atom just mentioned is not present to the second just as it is to a third one with which it is "chemically combined." The distant atoms do not mingle intimately. In considering interpenetration, we cannot go beyond the saying of James, "each part of the World is in some ways connected, in some ways not connected with its other parts, and the ways can be discriminated, for many of them are obvious to view." [1] A contention that there is interpenetration of "all by all" in the creative process will render the problem of causation, among others, intractable.

12. Quantity

§ 5. Every experienced quality has its quantity or measure. And (outside the sphere of the Command-Concept, Part I. Chap. II. § 4) quantity, in a concrete domain, implies quality. Indeed, a man might urge, not intolerably, that quantity is an aspect of quality, but nobody could hope to treat quality in a like way.

What is quantity? Every one knows the sensible difference between the weights of one and ten pounds of iron, or between a faint and a very intense pain. The sensible experiences of "more," "equal," "less," shine in their own light. Even Mill, however, who wants to "ground" quantity on "sensations," does not undertake to say what these sensational experiences are (*Logic*, Book I. chap. ii.

[1] *A Pluralistic Universe*, p. 79.

§ 12). In our early days as philosophers we were inclined, perhaps, to expect an answer to the query "What is quantity?" in terms of quality! But we are now desirous of knowing quantity itself, and not of being told that an experience, obtrusively unique, is something else. A is B and may, indeed, also be C, but we want to grasp its character, in the first instance, as B.

Quantity must be accepted as an experience as unique as green or blue or bitter. It is just what it is felt to be, and it is no good trying to bury its identity in an "explanation." We might say, perhaps, that, if green changes without in any way changing its greenness, the change is one of quantity. But it is not clear that we gain much by doing so. For in actual fact a change of quantity seems accompanied by a change of quality. Is not "more" of a toothache qualitatively, as well as quantitatively, different from "less" of it?

We must limit ourselves here to saying that quantity (how much?) concerns the manner in which qualities *occupy* the field of the C.I. It will lead us, therefore, toward further discussions of "activity" (Part III.).

13. On Relations in General

§ 6. The topic of relations has proved a trouble to philosophy; formidable blocks of vague, unclear thinking characterising the discussion. A "relation" is seized upon by the obscurantist as something "peculiarly recondite and mysterious" (Mill). The obscurantist is elusive because, like the cuttle-

The obscurantist on relations.

fish, when attacked, he escapes always in a cloud of ink. "Relations" are pointed to as visitors from a noetic heaven bringing "intelligible unity" into sense, which is belittled systematically to show off the virtues of the visitors the better. And preposterous complications ensue disgusting the average man with philosophy, and setting a disproportionate value on the particular issue discussed.

We have had some dealings with the relation-mongers in the course of our notice of Kant and the post-Kantians. Needless to wade deeply into controversy again. On the basis of our main imaginal hypothesis—of the C.I. regarded as ground of reality—we seem able to suggest a view of relations which meets all reasonable demands, realistic and idealistic, at once.

On a way of conjuring relations into being.

Relations conceived as not merely "uniting" terms, but as precipitating them for the purpose, are *flatus vocis*, mere noises. It is a more plausible trick to extract relations from terms on the supposition that, the terms coming together, the relations start into being. *E.g.* two dots (terms) appear together in a void. They are related at once as different and simultaneous; if they appear one after the other, as successive; while, if they resemble one another, the relation of likeness, also, is born. And the relation of likeness, at any rate, seems bound up inseparably with its terms. I tried this kind of experiment in the days of youth when I sought to "derive" everything from something else, preferably much poorer than the reality "derived." A short question wrecks this attempt to derive the simpler relations. Whence are the

dots and how do they come *together*? It is in this "*together*" that the solution of the relation-riddle lies hidden.[1]

Mill on relations.

Mill urges that "whenever two things are said to be related, there is some fact or series of facts, into which they both enter . . . whenever any two things are involved in some fact, or series of facts, we may ascribe to these things a mutual relation grounded on the fact"—the *fundamentum relationis*; or, otherwise, "an attribute, grounded on *some fact into which the object enters jointly with another object*, is a relation between it and that object." This clearness of writing is refreshing after the verbose obscurantism of so many penmen. Unfortunately Mill's psychological idealism mars the result. He resolves the phenomena, meant by the names expressing the relation, into "states of consciousness" of this and that person. Still, he has cleared the air sufficiently to enable us, with the help of the imaginal hypothesis, to proceed.

The clue.

There is indicated in Mill's lucid writing an important clue—the concept of a *total fact or ground* to which the terms and the relations alike belong. It is the unity of this ground which underlies the differences which discursive thought isolates as "relations" and "what is related."

The "total ground" of relatedness.

The "total ground" for "relation," considered not from the point of view of Mill's psychological

[1] In *Individual and Reality* (1909) I urged in discussing cosmic relations that we cannot get behind the "*togetherness*" of differences in the Ground (p. 276). This view reappears in a new context.

idealism, but from that of an idealistic realism which is cosmic in outlook, is what we have so often discussed as the Imaginal IDEA or Cosmic Imagination.

The relation of difference and other basic types of relation.

The fundamental "relatedness" of everything and anything stateable as "terms" lies in their compresence or togetherness as contents of the total cosmic ground, *i.e.* the C.I. Differences are only different in so far as they are compresent or *together* in the imaginal content-wealth of the C.I. This is to say that the relation of difference, which is presupposed by all other relations (since terms must be different in some way to be ends of a relation at all), shows on the "total ground" of the C.I. Similarly time is the order of different terms as simultaneous and successive; space of them as co-existent; causation of them as successive in a specially intimate way; resemblance, again, holds between different terms within the all-inclusive identity of the C.I. In these typical cases there are noticed (1) the contents *a*, *b*, *c*, on which we dwell as arrest-points of attention, and which become for us, in James' language, "substantival" *terms*, and (2) the *manner* of their appearing or belonging to the "total ground"; a manner which can be described as one of the various forms in which differences or diversity are awareable as *also* together. There is no mystical entitative "relation" which throws a net around *a*, *b*, *c*. It deserves note that the "relation" itself becomes a "term" as soon as I dwell on it in thought as now. When I say "relations" are abstractions, I am at the heart of this point of view; I am confronting erstwhile relations as "terms" about which assertions can be made.

In these typical cases of relation we have the clue to the character of all others.

A relation defined.

A relation, then, is that aspect of a content-whole, along with which aspects felt as different are felt also together. This view can be tested conveniently by the relation of co-existence. There is a total experience—in this experience two or more *different* terms, A and B, stand out "substantivally"; the relation is the aspect of the experience along with which they are felt also as together, as *co*-existent.

Relations must not be exalted above "sense."

The aspect of the relation need not be supposed to be, in some mysterious way, superior to the "substantival" aspects or terms. As we have seen, a relation of time, space, causation, or resemblance, etc., becomes a term when I proceed to reflect on it. It is part of the imaginal structure of the world; and that is a sufficiently honourable position without our according it supra-celestial honours. Nay, the old antagonism between relation and sense ought to disappear. Sense at its best is divine; relations on the lower levels of being are as undivine as anything can be.

Are relations of the same stuff as terms?

It was pointed out by Huxley in his work on "Hume" (p. 69), that a great error of that agnostic lay in overlooking "*impressions* of relation," and trying to manufacture relations artificially in consequence. James has urged at length that space-relations are homogeneous with their terms. He has reminded us too that Destutt de Tracy ("the faculty of judgment is itself a sort of sensibility"), Laromiguière, Cardaillac, Brown, and finally Spencer, have explicitly contended for feelings of relation,

consubstantial with our feelings or thoughts of the terms "between which they obtain."[1] Let me add that nowhere is this "consubstantiality" more clearly shown than in relations of resemblance. Two terms that are alike, *e.g.* two shades of red, are obviously like in respect of their sensible feltness. And a relation of likeness, not homogeneous with the felt reds themselves, would seem remarkably far to seek. We must add that philosophy can be far better occupied than in seeking it.

But whether you hold that relations are homogeneous with their terms, or whether you maintain that they differ from them radically, you come all the same to this. These distinctions, of which men have made so much, melt into one another in the imaginal structure of reality. They are not entities which exist apart from one another in the thought which sires Nature and ourselves. And that is the main consideration which ought to concern metaphysics.

"Internal" relations.

In a Universe, which is psychical in character and of which interpenetration—the mingling of "terms" in one another's being—is a feature, relations will be, to a very great extent, "internal," *i.e.* such as are connected with the qualities of the terms; any change of relations influencing these qualities. Thus the members of a novel group of minor sentients, as symbolised by a formula of chemical combination, have new qualities answering to the novel positions which they occupy in the cosmic space-order. But at this point a wide vista opens up before us, and we have more to do yet before we are ready to enjoy it.

[1] *Principles of Psychology*, i. 247 (Macmillan).

CHAPTER V

ON CERTAIN IMPORTANT ASPECTS OF THE C.I. CONSIDERED SEPARATELY (*continued*)

14. Causation

§ 1. Having glanced at relations in general, we pass to a special preliminary notice of the very important kind of relation called causal. The relation itself seems derivative; a contention which will occupy us during the speculative account of the beginnings of *our* World-System. For the present, we are to consider causation as it characterises the existing world. Having recognised the reality of time-succession, we are to suggest more precisely how the "instants" or steps in it follow one another, and follow in those stable ways which we generalise as causal "laws."

The relation seems derivative

Causation is our manner of thinking about that momentous feature of experience—the Event. Nothing that begins stands alone, merely flashes into being inexplicably.[1] It is held to be connected with

Is causation a true way of thinking?

[1] The often cited Principle of Sufficient Reason affirms that "no fact can be found real, no proposition true, without a sufficient reason why it is in this way rather than another." It is a useful postulate, though it is by no means clear what is the precise meaning here of the word "reason." Let us render the

prior circumstances or "conditions" which are said to determine it, and, which being complete, it happens. Cause has been defined as the totality of these "conditions." This view, which regards the cause and the event as somehow distinct, has been described as an "ideal *reconstruction* of continuous change in time"; the suggestion being that we are not thinking truly, not imagining reality quite as it is. We shall have to deal with this criticism very seriously. To regard causation as a false way of thinking would be fatal to the metaphysics of this essay.

The practical and the philosophical concepts of cause differ by the breadth of being.

This mention of the "totality of conditions" illustrates what a gulf it is that yawns between practical ways of thinking and the way of philosophy. The cause-seeking propensity in Eocene man ministered solely, we can be sure, to the practical need of picturing a definite "antecedent circumstance" such as a cave-bear or *felis spelaea*, which might shortly invade the present as well! The attitude was that of expectation; a narrowly circumscribed interest guiding psycho-physical impulse to act. Even now in practice any circumstance on which action turns, nay, even the absence of a circumstance ("my car has stopped—no sparking"), is treated popularly as the "cause" of an event. And the man of science himself only mentions "essential and invariable" conditions out of the host actually requisite to the occurrence of the phenomena he

postulate differently. The C.I., we can say, is such that no "fact" belongs solely to itself, but is an element in the total imaginal (not "rational") wealth of the Universe. Consequently when any fact of any character whatever happens suddenly and surprisingly, we can always be approximately sure that it has a ground beyond itself which we are to look for.

studies. Here, too, as in the case of Eocene man, though on a higher level, there is a selective process whereby " we arbitrarily give relief to those elements to whose connection we have to attend in the reproduction of a fact *in the respect in which it is important to us* " (Mach). A statement of the totality of the conditions of an event, say, the lifting of this pen, would carry us very far. Some writers, indeed, urge that the entire contents of the Universe, those which we call " future " included, are involved.

The postulate of uniformity.

The postulate of causation asserts, further, that, given the same conditions, the same event will always happen. This expectation ought not to be embodied in the form of an axiom. It is not possible to verify belief in absolutely rigid uniformities.[1] Nor, if you were able to establish such uniformities now, could you be sure of having anticipated the future. Reality is plastic ; and terms and relations alike, in the welter of creative evolution, suffer change. Nature-processes are not the appearance of a mechanism. " The objective factor," writes F. C. S. Schiller, in the regard of uniformity, " is that all things have *habits* and change them (if at all), so slowly that for most scientific purposes we may assume them to be constant " ;[2] and we have to recall that psychical existents, not mechanics, lie at the heart of Nature. Mill warns us not to assume the uniformity of causation as a law of the Universe, but to treat it as holding " of that portion only which is within the range of our observation, with a reasonable degree of extension

[1] *Cf.* Taylor's chapter on the " Meaning of Law," already cited. *Elements of Metaphysics*, pp. 216–39.

[2] *Riddles of the Sphinx*, p. 470.

to adjacent cases." [1] Bain treats it definitely as a postulate which must be made good, so far as this is possible, in the process of being *used*. Nothing more is wanted than an assurance that the future will square, sufficiently well for our purposes, with expectations based carefully on the experience of the past.

Mill's definition of cause only considers surface-phenomena.

Mill's definition of cause as "the antecedent or the concurrence of antecedents on which it [the event] is invariably and *unconditionally* consequent," [2] only considers surface-phenomena. "Unconditional" means that the event is not conditional on the occurrence of other antecedent conditions; "invariable" that observation shows that the event always occurs.

The true riddle stated.

No attempt has been made to answer the question as to why the event or consequent begins—why, for instance, the concurring antecedent conditions, in the case of lighting a fire, issue in the actual phenomena observed. It was not, indeed, Mill's intention to provide an answer. But we as avowed metaphysicians may be more enterprising. We cannot rest content with the view that a relation of antecedents and event is all that is stateable in the matter. The fire does not begin merely because certain other surface-phenomena belong to the time-succession in which it lies. On the other hand, we ought not to seek to find the ground of this beginning in a "reason." [3] We ought to require

[1] *Logic*, 8th edit., p. 376.

[2] *Logic*, Book III. chap. v. § 6, "Law of Causation."

[3] "A cause," writes the Hegelian Dr Hutchinson Stirling (Notes to translation of Schwegler's *Handbook of the History of Philo-*

a clear account of how the *concrete sensible phenomenon* "fire" comes to appear in the time-series; and no juggling with abstract "reasons" will suffice to provide us with what we want. How are we to obtain it? On the lines of the imaginal hypothesis which we are following out.

The secret of causation will not appear as a "reason"; nor, again, will it take the shape of the hypothesis propounded by Bain. Mill had his eye mainly on a procession of qualities; Bain on quantity. "Transferred energy is thus the final and sufficing explanation of all change and the only explanation in the highest sense of the word. Any fact of causation, not carried up into this supreme law, may be correctly stated, but it is not accounted for."[1] A case of causal relation is analysable into "moving power" and a "collocation" of circumstances. Carveth Read is equally insistent. The "transformation of matter and energy" is the essence of causation,[2] and "the cause of any event . . . when exactly ascertainable, has five marks, it is (quantitatively) equal to its effect, and it is (qualitatively) its immediate, unconditioned, invariable antecedent." This is our old friend the conservation of Energy in a new rôle. Its function here is to make Mill's concept of "unconditionality" more definite. "For when is a cause unconditionally adequate to an effect? When the

The secret of causation is not read by Bain and Carveth Read.

sophy, 8th edit., p. 456), "is the *rational* antecedent of a consequent." Philosophy "is nothing but the demonstration of this rationality which, of course, is not always explicit." A "rational antecedent" won't account for the fire as sensible fact!

[1] *Logic*, "Induction," p. 30.

[2] *Logic Deductive and Inductive*, p. 177.

two are equal: for if the effect is the greater, the whole cause cannot have been discovered; and if the cause is the greater, some portion of the effect must still be unexplained." [1] With respect to the "Matter" concerned and the "Energy" transformed, cause and effect are equal, and with respect to "Matter," indeed, are more properly styled identical —the effect being only the cause "redistributed."

We have already said enough about the mechanistic concepts of Matter (extended mass) and Energy. They are conceptual instruments of value mainly to practice. Offered as metaphysical ultimates they become absurd.

The objections to this kind of explanation are stateable succinctly thus. (1) Not all alleged cases of causation can be discussed in this way. Thus the causes of the conversion of Liberals to Home Rule, or of my revolt against Kant's doctrine of categories, must be described in terms of psychical transitions. I need not enlarge on the extent of the field sampled by these cases. (2) And even in the regard of Nature this kind of description ignores the qualitative, and the most puzzling, side of the riddle of causal change. No conservation theory tells us why and how *this* mode of "Energy" passes into *that*—it dodges the difficulty by urging us to think solely of "equivalencies" of quantity. (3) The entities used in the measuring of quantity, viz. Matter and Energy, as our analyses have shown, are inventions thrown off to convenience calculations.

[1] I found this passage in his *Metaphysics of Nature.*

The quarter in which the secret of causation is to be sought.

The secret of causation must not be sought by inspecting Nature *from the outside*, and weaving abstract aspects of our perceptions into new forms. The procession of Nature's surface-phenomena is mute. To find the secret of causation we must look within and note the movement of our creative psychical life. And why? *Because this life reveals to us on a rich and more complete scale the same kind of creative psychical life which is the ruling power at the heart of Nature.* We are very soon about to put this procedure to the test.

Idealists who regard causation as an unsatisfactory way of thinking.

Idealists of neo-Hegelian and allied types, who reject the reality of time-succession, deny consistently that causation is a true category of thought. There is no secret, in their opinion, to be discovered, save that causation is an inadequate and contradictory way of thinking which must be transcended by any philosopher moving toward the Olympus of the Absolute. Since everything is present to the Divine Experience, in which all that is possible is timelessly known and realised, time-succession seems to them only a phenomenal show valid for us and like finites. Nothing *happens* in the Absolute—consequently, there is no need to seek to know how it happens!

Is the savage sometimes nearer to truth than the sage?

It is a far cry from the practical standpoint of the savage to that of contemplative sages in quest of truth. Peradventure it is sometimes too far a cry. A. E. Taylor, an idealistic Absolutist, assures us that "any form of the principle [of causation] in which it is true is useless, and any form in which it is useful is untrue."[1] The savage in his practical

[1] *Elements of Metaphysics*, p. 182.

outlook for agents, which *really act* and so bring to pass happenings of interest to him, is surely nearer a grasp of reality than the dreamer who accepts a Universe in which nothing happens at all—in which everything is determined to be what it is within the Experience which grasps its contents in timeless fixity. Are all dramas of the forest, all the cruel, squalid, and miserable details of the savage's career, peeps into the already complete spiritual heaven of the Absolute ? This surely is a hard saying indeed.

The alleged "fatal logical defect" in causation.

Causation, as a mode of thinking of men of science, means that an event is completely determined by the "antecedent conditions" of which we spoke. And this implies what Taylor calls a "*one-sided dependence* of the present on the past, and of the future on the present." [1] Taylor, like other idealists of his school, considers that logically "there is no better reason for treating an event as determined solely by antecedents, than for treating it as solely determined by subsequent events." The principle on which he relies, that of "Ground and Consequence," is to the effect that the whole of existence is a "single coherent system in which every part is determined by the nature of the whole as revealed in the complete system. But if this is true, each constituent of the system can only be entirely determined by its connections *with all the rest.*" [2] This is to say that the alleged one-sided dependence, *e.g.* of the explosion of a shell, on antecedent conditions overlooks that portion of the contents of the Absolute Experience which, from our finite point of view, we call the "future." The explosion

[1] *Elements of Metaphysics*, p. 166.

[2] *Ibid.*, p. 167. The italics are mine.

is determined by these "future" contents, as well as by the innumerable other prior conditions from which science and popular thought make their meagre selections. This is the logical defect in causation which prevents it from being regarded as giving the highest truth, and reduces it to the level of a practically useful postulate, not to be taken too seriously.

It is clear that this attitude presupposes the unreality of time-succession; the "future" (as we speak of it) is in being, and, as a partial aspect of the Absolute Experience, contributes to the determining of the present, and, also, of what we call, again from the finite point of view, the "past." We cannot endorse this mode of assailing causation. Time-succession is real; it is the *Form of Creation* itself (Part II. Chap. III. § 2).

The threads of causation of different events must be somehow distinct.

In indicating the conditions of an "event," these critics point to the entire contents of the Universe. If, in our turn, we were to grasp at *antecedent* contents in this way, we should be offering the entire prior portion of our World-System as the cause of these and those particular *different* "events," and should debouch thus in absurdity. Assume, *e.g.*, that "events," a shell explosion, a heart-beat, a shriek, a fall of water, occur simultaneously. We should be saying that the *same* totality of antecedent conditions is the cause of four *different* effects. And this would render the concept of cause valueless alike for the purposes of practice and philosophic thinking. We must, therefore, avoid this impasse. We must adhere to the old view that the threads of causation in the cases of the four "events" are somehow *distinct*, and shall be required to offer

some account of the manner in which this distinctness obtains.

Criticism of causation based on the alleged "continuity" of the time-series.

We have to notice at this juncture the argument against causation, based on the continuity of the time-series, as presented by Taylor. It throws into relief features of the situation of real moment: ". . . the doctrine that the cause precedes the effect rests upon the notion that the time-series is one in which each member has a next term. And this seems inconceivable. For not only can you subdivide any finite time, however small, into two mutually exclusive parts, but the point at which the division is effected is itself a moment in the time-series lying *between* the beginning and the end of the original interval. Time therefore must be continuous, and if causation is not equally continuous, we must suppose that gaps of empty time are what separate the first event, the cause, from the subsequent event, the effect. Yet *if* this could be regarded as a defensible doctrine on other grounds, it would then follow that the assemblage of events A is not the totality of conditions requisite for the occurrence of B."

And Bosanquet asks in a similar vein—if, in a sequence *a-b*, continuity is broken, so that *a* and *b* are detached events, "What difference could it make if, instead of *a*, *c* preceded *b* ? " [1] The radical objection is that mere *a* cannot be supposed to produce *b* across the gap, and that a further factor must be introduced to bridge the interval. But if that factor also is a detached event, another gap will have to be bridged, and so on. We get to the

[1] *Essentials of Logic*, p. 165.

infinite regress—a "solution," always being repeated, which confronts us with the original problem.

In discussing continuity (Part II. Chap. IV. § 4), however, we urged that we had no use for a mathematical continuity, in which a term is always discoverable, *by decree of the conceiver*, between any two given terms. Surely this is an invention in the domain of the Command-Concept? No one can look for, and hope to verify somehow, *this* kind of continuity in the realm of experience. It is literally not true that we can divide "any finite time, however small," indefinitely. Concrete succession in time implies sensible change, and the failure of sensible quality to verify repeated "divisions" makes itself felt very soon. Of course, there is no limit set to the flights which the mathematician, who ignores sensible experience, may take. But he invents for his peculiar world and not for the time-order which we others directly confront. We have already emphasised this point in the course of the discussion of time. And a reply.

We can dispense, then, with this invented continuous time. Reality does not contain this kind of time, or rather contains it only as *decreed*, but not realised, in the imagining of certain mathematicians. True metaphysical continuity, we must repeat, is such as to comprise even the sensibly discontinuous aspects of the experienced world. However "loose" are the many, they are "held together," withal, in that basic continuity—the active *con*sciousness that *co*-awares all. And not the least wonder of the Universe is just this truth: that continuity and discreteness are compossible. Theory, accordingly

—the abstract "law" of contradiction notwithstanding—must accommodate itself to the situation. And it can do so easily, since the *experience* that continuity and discreteness are somehow together is itself the proof that they are *not* the exclusives or contraries which the "law," such as it is, has in view.

Causation as accepted on the lines of the imaginal hypothesis.

We shall now attempt to indicate the lines on which causation can be accepted.

Conformably with the imaginal hypothesis of reality, which once more affords a clue, we accept and interpret causation thus.

What the time-succession is.

Causation is a way of explaining change—the happening of events.[1] Change is real. Time-succession, which is the order of changes, is the *Form of Creation*. It is a manner of appearing of quality (such as we aware in multitudinous variety alike in the outward and inward present) and contains, accordingly, no empty lapses or "gaps."[2] Were there no changing qualities, there would be no time-succession at all.

The steps of change.

This concrete time-series, as it exists for the C.I. and, in fragmentary fashion, for ourselves is what is technically called a "discontinuous" series: *i.e.* it has members or terms which have *next* terms, and are finite in number. Change takes place in such a series, as James puts it, in *steps*. That is to say,

[1] A "Thing" is a more or less enduring complex event.

[2] Time "gaps," as we live them, are themselves sensible feltnesses, but contain qualitative content different from that in which we are specially interested.

there are no infinitely graded transitions between the terms A, B, C, D . . .; transitions which, were they real, would destroy the *distinctness* of the terms themselves. There are, in last resort, abrupt transitions in which B follows A, and C follows B, and all these terms have a certain minimal duration, in which there is no change at all. *This minimal duration is an echo within the world of change of what we have called the conservative or "genuine" pre-evolutionary present* (Part II. Chap. III. §§ 3, 4).

James on the steps.

Regarding such "steps" James observes: "If a bottle had to be emptied by an infinite number of successive decrements, it is mathematically impossible that the emptying should ever positively terminate. In point of fact, however, bottles and coffee-pots empty themselves by a finite number of decrements, each of definite amount. Either a whole drop emerges or nothing emerges from the spout. If all change went thus dropwise, so to speak, if real time sprouted or grew by units of duration of definite amount, just as our perceptions of it grew by pulses, there would be no Zenonian paradoxes or Kantian antinomies to trouble us. All our sensible experiences, as we get them immediately, do thus change by discrete pulses of perception, each of which keeps us saying 'more, more, more,' or 'less, less, less,' as the definite increments or diminutions make themselves felt." It is of striking significance—is it not?—that sensible experience, "inward" as well as "outward," reveals these discrete pulses. In the experience, then, which must verify hypothesis, the "steps" of change are, to this extent, obvious fact. You object, perhaps, that we ought to be

Do such "discrete pulses" occur in the Cosmic Imagining?

discussing, not *our* human ways of perceiving change, but cosmic change itself. Change, however, as awared by us, is part of this wider stream of change. And — never let it be forgotten — the cosmic imaginal activity, expressed in change, is fundamentally akin to our own sentient life. There is nothing, then, preposterous in the statement that discrete pulses of change, such as are provably present to ourselves, may be present, also, to *Cosmic Imagining* on the great scale. There lies hidden in this vital complementary view the solution of the riddle of cause and effect.

How does the distinct effect come to appear after the distinct cause?

A riddle already noticed, but left unsolved, is now confronting us. How does the "totality of antecedent conditions" or "cause," when complete, pass into, or get followed by, an event? If A is quite *distinct* from, and prior to, B, how does B come to occur at all? Would not a "cause" C, equally detached, serve just as usefully and uselessly as A in "accounting for" what ensues? This is a fair and a telling query, and will have to be met.

A. E. Taylor suggests that the "discontinuous" view of causation requires us to assume an "empty time" gap between A and B, and that, having assumed it, we must state how B can appear on the further side of the gap.[1] His comment is that "A does not exist until *a*, *b*, *c* [the 'conditions' which it includes] are all present, and, as soon as they are present, B is present too. And thus the relation between A and B is not that of the sequence of a later event on an earlier. They are actually *together*."

[1] *Elements of Metaphysics*, p. 173.

We do not require the wadding of "empty time" suggested—it is not even available. And we cannot consent to be argued out of belief in a sequence by the remark that A and B, unseparated by such a wadding, are *together*. When I watch a game of billiards, I notice that cause and effect, in the case of a cannon, are *together* in my brief time-span of direct perception. But they are together as a sequence; the continuity of *con*scious grasp is such that the elements of a succession are intuited simultaneously.

I am able to note by this experience where the basic continuity obtains, to wit, primarily on that side of reality which we call *con*sciousness. And I observe that terms, which are successive, are also awareable *together*. This is well worth emphasis. But I have not solved the problem of how a more or less distinct A, present to consciousness, is followed by B. My perception of the cannon is not instructive in this regard. And why? Because in perception I know the sequence *only from the outside*. I am aware directly of a procession of happenings, but not of the *vis creatrix* of which they are signs. In fine, I am confined to a knowledge of certain changes of quality and certain movements which may mask much, but are themselves mute as to why they occur.

Let us transfer ourselves in thought to the COSMIC IMAGINING, and let us consider the "event caused" by the combination of hydrogen and oxygen as water. As Mill himself points out, chemical combination, were it not that the weight of the compound remains the same as that of the combining factors, would be

regarded as *transformation*. And for us, who have cast away mechanistic superstition, transformation it inevitably is. How does this qualitative transformation come to pass?

Natural causation in the Cosmic Imagining.

It is part of the *creative imaginal process* which wears the form of time-succession. Nature itself, as we have seen, is nothing but an imaginal whole or sub-whole which buds off from the C.I.; and the different processes within Nature are, accordingly, *only different sorts of imaginal happenings*. Within Nature, again, the different parts *all but* break away from their sub-whole, just as this sub-whole *all but* broke away from the C.I.; this is the free swing of the multiplicity which we have so often discussed. Now Nature retains its imaginal character in its quasi-independent life. It is literally a poem in the making, and a poem, let us add, that has parts largely *making themselves*. For the cantos, stanzas, words, and letters of this poem are not dominated entirely by the main idea of the poem; they are "loose" aspects of the sub-whole, Nature, and the result is that Nature, in many regards, is chargeable with lack of order. The immanent purpose is a broken one, and discords prevail in most quarters. This feature must be borne in mind in explaining causation. It will be vital, also, to our understanding of the birth of evil and of much else not yet in view.

Let A (*a*, *b*, *c*) stand for the "totality of conditions," the oxygen and hydrogen, and all that goes to make them what they are and to furnish the setting in which they meet. Hydrogen and oxygen are, of course, symbols only of psychical existents,

"scious" rather than conscious in the sense in which centres of experience, which comprise "selves," are conscious. And these psychical existents and all the other concurring conditions have qualitative contents basally the same as ours when we aware colours, sounds, pains, etc. What happens when A (*a*, *b*, *c*) become related in the very intimate way which is symbolised by the "chemical process" and what it involves ?

Minor agents or sentients of the time-process, as we shall note in our tale of the beginnings, are self-conserving: a characteristic which they inherit from the conservative ground, whence Nature, or rather the Natures, bud off. Their qualities resist alteration; their self-conservation implies conflict with any hostile quality which is thrust on them from without. Such invasions are always taking place; many further the quality or qualities of the minor sentient and are unresisted; many are neutral, perhaps, many felt as hostile or *contrary*. In the mingling of self-conserving qualities in this "interpenetration"—an interpenetration, *not as Bergson has urged*, "*of all by all*," *but of* "*all by much else*" —occur the productions of events!

The "concurrence" of conditions *a*, *b*, *c*, as asserted by many writers, is a mere phrase, but, as we understand the field of causation, it is genuinely expressive. In the interpenetration of the more or less "loose" modes of Nature, the conditions really do "run together" or meet.[1] And *a*, *b*, *c*, in thus interpenetrating or meeting in the case under notice, The production of the "event."

[1] This will be shown clearly in the account of the origin of cosmic space itself.

"mingle in one another's being" very intimately indeed. This very intimate mingling implies a mutual furtherance, but, also, a partial conflict, in which contraries assert themselves at the same points of space and time. This impasse is dealt with by an abrupt harmonising *imaginal creation*—the *new* qualities of water which were not present in the "conditions" regarded separately or collectively before the creative act. That like conditions issue everywhere in like, or approximately like, "events" shows that Nature, however divided against itself, however broken by the "looseness" of things, is, nevertheless, an inchoate imaginal *system* or ordered whole. Imagining, even in the heart of discrete multiplicity, is never, perhaps, utterly capricious. (*Cf.* on uniformity, pp. 467-8.)

The abrupt imaginal creation.

There is no "dialectic" in natural processes.

It is noticeable that we have here what might be tortured into "dialectic."[1] But, in truth, there is no dialectical moment which passes into, and so evolves, its negation or opposite (moment 2) and emerges as a result (moment No. 3), which includes the earlier moment and its negation. Our "conditions" are *found for one another*, and the *harmonising* imaginal creation was "implicit" in none of them, but is a novelty of "real time"—I apply James' language—"sprouting."

We can surmise now in part how the indefinitely varied novelty which marks the perceptual flux and our inward lives can emerge. There is the observed stability of "equivalents" in transformation, but, along with this stability, due to self-conservation,

[1] Hegel held that dialectic was illustrated throughout Nature. It is the "universal power" (Part I. Chap. IV. § 14).

there goes the becoming of something out of nothing —of the new qualities which are not in the conditions and are gifts of creative imagining. Hegel is perfectly right in urging that the saying, "From nothing comes nothing; from something something," abolishes becoming, though this view seems fraught with trouble for his own general philosophical attitude. Anyhow "*Ex nihilo nihil fit*" cannot figure without qualification in an imaginal interpretation of reality. *Ex nihilo nihil fit?*

But all causation is not of the markedly *creative* type sampled by chemical process. It is at this stage that we advert to the distinction drawn by Mill between cases of the "composition of causes" and cases of causation such as he surveys in his notice of "heteropathic" laws.[1] It serves to mediate our discussion of the part played by conservative, as well as by creative, imagining in causation.

Mill on the composition of causes and "heteropathic" laws of causation.

There are very few, if any, effects which, even in a practical regard, are held due to one agent. And in respect of the joint action of causes, we are often "able to arrive deductively, or *a priori*, at a correct prediction of what will arise from their conjunct agency. To render this possible, it is only necessary that the same law which expresses the effect of each cause acting by itself shall also correctly express the part due to that cause of the effect which follows from the two together. This condition is realised in the extensive and important class of phenomena, commonly called mechanical, namely the pheno-

[1] *Logic*, Bk. III. chap. vi. on the "Composition or Blending of Causes."

mena of the communication of motion (or of pressure, which is a tendency to motion) from one body to another." Each cause here has its full effect, just as if the body had been subjected to one after the other. After noting the *surface-phenomena* in this quarter, Mill uses the expression "composition of causes" to cover all cases in which the joint effect is analysable into the sum of the separate effects.

This composition of causes does not apply to chemistry, for here "most of the uniformities to which the causes conformed when separate cease altogether when they are conjoined"; and to know exactly what a combination will produce we have to try it and not deduce it. This holds still more true "of those far more complex combinations of elements which constitute organised bodies and in which those extraordinary new uniformities arise which are called the laws of life. All organised bodies are composed of parts similar to those composing inorganic nature and which have even themselves existed in an inorganic state; but the phenomena of life which result from the juxtaposition (*sic?*) of those parts in a certain manner bear no analogy to any of the effects which would be produced by the action of the component substances considered as merely physical agents."

"One of the fundamental distinctions in Nature."

This constitutes, in Mill's opinion, "one of the fundamental distinctions in Nature." But composition of laws which work together unaltered is the general rule, and the joint causation with heterogeneous effects (in which laws called on to work

together, cease, and give place to others) is "special and exceptional. There are no objects which do not, as to some of their phenomena, obey the principle of the composition of causes, none that have not some laws which are rigidly fulfilled in every combination into which the objects enter" (*e.g.* the parts of an organism conform to chemical and mechanical laws "in so far as the operation of those laws is not counteracted by the new laws which govern them as organised beings"). Mill's use of the term "laws" is somewhat too suggestive of principles which *control* phenomena, rather than of generalisations which record the uniformities or samenesses of behaviour of things.

Heteropathic laws may concur, then, with a portion of the previous laws which they replace and compound the effects of these with their own. A heteropathic law may, also, compound its effect with that of another heteropathic law or laws, as in an ordinary case of "composition." And chemistry and physiology may yet be deductive,[1] if the new heteropathic laws are carried unaltered into further combinations. Simple laws of life may compound with one another and with physical and chemical laws to produce complex organic results.

[1] "The different actions of a chemical compound will never, undoubtedly, be found to be the sums of the action of its separate elements; but there may exist between the properties of the compound and those of its elements, some constant relation which, if discoverable by a sufficient induction, would enable us to foresee the sort of compound which will result from a new combination before we have actually tried it, and to judge of what sort of elements some new substance is compounded before we have analysed it." This prophecy has since been made good.

"Critical points" in creative evolution.

It is remarkable how, at certain critical points in the evolution of Nature, strikingly novel happenings, not deducible from prior happenings, supervene, and how the heteropathic "laws," generalising these happenings, are recompounded indefinitely with one another and with other causal "laws" in the creation of a new order of things—which things, again, behave so as to generate further "laws," a process which continues beyond biology into the heart of History and individual life.

Almost as striking as the imaginal leaps at the critical points of creative evolution—as *e.g.* at the birth of the biological "organism"—is the manner in which these bolder innovations are produced sparingly so as not to imperil the stability of an orderly advance. A certain economy of creation, as shown in the detail of the "recompounding," marks the Cosmic Imagining.

The imaginal view of causation tested by directly awared psychical fact.

We have found in the case of chemical process, which implies an *intimate* interpenetration of certain minor psychical existents lying at the heart of Nature, that a "caused event" is an imaginal creation. But we also said some while ago that the secret of causation ought to be sought in the full glare of our own directly known psychical lives. Here we are aware of reality from the inside. If, therefore, the imaginal view of causation can be verified, there ought to be an attempt to seek such verification within ourselves. The forms of causation will vary much from those on simpler levels of being, but they ought to reveal imagining even more obviously. And they do.

What is the cause of the production of "Hamlet"? The "totality of conditions" comprises, besides a poet's education, vicissitudes and thoughts about life, an old story picked up somewhere, a desire to profit by fame, love of art for its own sake, etc. etc.; the list being susceptible of additions in a great variety of directions. But tabulate the "conditions" as you will, "Hamlet" will not be present in any one or in all of them. It is of no use to say with Bradley or Taylor that when conditions *a*, *b*, *c* . . . are complete and present, "Hamlet" is present as well. For you know perfectly well that this is to say that, when the "condition" *of having been imagined* is present, "Hamlet" is present too! But it is just *this* stroke which is entirely new to the Universe: the appearing of a creative construction which has never been thought before. The supreme causal *act* (just as in the case of the chemical process) is not the meeting or interpenetration, in the experience of a poet, of innumerable psychical data. It is the *making* of the play that transforms, and brings new harmony into, the data. Seen in this light, the "event" illustrates the truth that something—the distinctive reality of "Hamlet"—can come from nothing. Only if you ignore novelty is it true that something has come from something; to wit, from the data tabulated in the "conditions." The production of "Hamlet."

Every novelty of any kind whatever equally contradicts Spinoza's view that something cannot proceed out of nothing. Something proceeds out of nothing in the case of the change which every causal act involves. The static Spinozistic Universe (with time-succession "unreal") cannot accommodate a *becoming*. But an imaginal Universe (with

time-succession as the Form of Creation) welcomes the notion of becoming, and with it the truth that something proceeds from nothing in all quarters and times of the evolutionary process.

Imagination and choice.

What is the "cause" of my decision to buy a motor-car and go to Switzerland? You tabulate "conditions" again, talk of "motives," "character," and so on. But these "conditions," present in a context of interpenetrative psychical elements, do not provide the answer. I am going at the urge of imagination that has made for me *a new ideal life* out of given psychical stuff. It is this *transformation* which, occupying the focus of attention, masters me and, in virtue of its compelling interest, commands action.

The cause of socialism.

What is the "cause" of socialism? A Marxian finds the push in a dialectical process, but we saw, in the course of our examination of Hegelianism, that this explanation will not suffice. *There is a repetition, but on a much higher level, of what occurs in a chemical change.* Mill would tabulate "conditions" the "laws of mind," the desires, pains, etc., of the masses, economic factors, and so forth. But not one of these "conditions" (nor all collectively) contains that "solution" of the problem which the socialist holds so dear. That "solution" is an imaginal creation: an improved way of living invented on the prompting of the economic impasse. It brings harmony into the conflict of interpenetrative psychical elements which hold attention and, in virtue of its compelling interest, commands action.

A "solution" of this kind contains previously

conflicting elements changed and suspended harmoniously within itself.

In these *abrupt* imaginal apparitions we have discrete "steps of change," which, in the sphere of human thought, engender all the so-called "intellectual forces" of progress—economic, social, and political. The ideals which move mankind do not *grow out of* prior data present to experience; they are not results of a development with infinitely graded transitions; they are novelties which transform situations. They presuppose certain antecedents without being explained fully by them. All are experimental, and very many close in failure. The wellspring of human progress.

The stages or "moments" of human progress culminate in effete conditions of living; an impasse which is relieved at last by the imaginal construct. That is the principle of movement in history, for which dialectic used to stand wrongly. Observe that, in cases in which the impasse is not grievously felt or in which the imaginal construct evoked is poor, stagnation or worse ensues, and not progress. A "dialectical movement" seems strangely absent from China, asleep through the centuries. The truth, of course, is that there is no universal compulsion that enforces progress. Imagining, again, must be passionate as well as able, or the inertia of human habit will defy assault. "The future is nothing but the 'realised ideal' of the people," writes Carlyle; and this "ideal," which may be furnished by a single reformer, as so often in history, is just imaginal creation. But the ideal must fire those who are to reimagine it in their turn. This is what Disraeli saw when he wrote in *Coningsby*: The true principle of movement in History.

"It was not reason that besieged Troy; it was not reason that sent forth the Saracen from the desert to conquer the world, that inspired the Crusades, that instituted the monastic orders, it was not reason that produced the Jesuits; above all, it was not reason that created the French Revolution. Man is only truly great when he acts from the passions; never irresistible but when he appeals to the imagination." In sober truth "Reason" is not a glacial impersonal agency. It is a name for certain processes, ratiocinative and inductive, which conduce to the success of men thinking in *certain interests*, toward certain ideals, invariably coloured by emotion, whether they are what we call "theoretical" ideals or not. The point to remark is that there is no great work, "theoretical" or "practical," to be carried through without fire. And this truth holds good most obviously in the domain of political and social progress.

The environment, however, must not be too unkindly; even if Eskimo imagined well, their surroundings, too irresponsive to action, would forbid progress. There is no magic in a mere struggle for existence; our surroundings, which may overwhelm, must conspire to aid, us. Lastly, the physical basis of a community—its "bodies"—must be such as to support a striving for betterment. Men's imaginings are weighted by their organisms, by the habits of the lesser psychical existents or "minor sentients" which are active in these organisms and have their own obstinate ways of living that may conflict with our projects of reform. These habits have been discussed wrongly as a mythological "inert matter" which hampers "spirit"; in reality they

The true "inert matter" which hampers "spirit."

are more or less stable modes of action which resist, indeed, *our* initiative, but are not, on that account, to be referred to a non-psychical world. They may steady, and anon help to secure, the work of our initiative, but they may also arrest it; often, also, they worsen and corrupt those ideals that we wish to realise for our own or the larger social life. The way in which they do so is one of the many undivine features of creative evolution, as we observe it.

Thus an imaginal stroke, novel and abrupt, a transformative "step of change," marks the more impressive cases of causation into which we can look, as men taking part in a pageant, from the inside. The "result" or "event" presupposes the "conditions," but is not fully explained by them. There is a transformative magic which conjures the effect into being. The causation of a work of art, of a chemical effect, of a biological novelty, of a political movement, are all creative in this astonishing way. In the history of art, indeed, this creation is such as to enforce notice; things, which cannot be considered as "latent," *aliquo modo*, in their conditions, are perpetually coming to be. But in explaining causation on imaginal lines we are not to overlook the fact that imagination is *not merely productive, but is also conservative*. Even amid the changes of the time-process, we have to reckon with the conservative, as well as with the creative, activity of the C.I. Any given case of causation comprises features of stability or psychical habit, as well as of creative novelty; in one case conservation, in another creation, being the dominant feature. Even the chemical change or the political event does not wholly transform its "conditions." And,

On the conservative side of causation as interpreted by the imaginal hypothesis.

on the other hand, there are causal sequences wherein conservation, and not merely in the sphere of surface-phenomena, clearly prevails. Thus causes, as Mill points out, very often *resemble* their effects. "Not to mention forms actually moulded on one another, as impressions on wax and the like, in which the closest resemblance between the effect and the cause is the very law of the phenomenon; all motion tends to continue itself, with its own velocity and in its own original direction; and the motion of one body tends to set others in motion, which is indeed the most common of the modes in which the motions of bodies originate. We need scarcely refer to contagion, fermentation, and the like; or to the production of effects by the growth or expansion of a germ or rudiment resembling on a smaller scale the completed phenomenon as in the growth of a plant or animal from the embryo, itself deriving its origin from another plant or animal of the same kind. Again, the thoughts or reminiscences which are effects of our past sensations resemble those sensations; feelings produce similar feelings by the way of sympathy; acts produce similar acts by involuntary or voluntary imitation." Again, if our advocacy of the imaginal hypothesis of causation convinces the reader, the case is one in which a belief produces, or rather helps to produce, a belief *like itself*. One sort of imagining, directed toward truth, is *repeated* in the imagining of other persons; the transformation also implied is subordinate to this central fact. Similarly, when a missionary "converts" a Fijian he transforms some of the latter's beliefs, but the result is to make them like his own. Causation in such cases is dominantly conservative.

Conservation and creation obtain thus together, the one dominating here, the other there. If now we revert to Mill's views on causation, we find that our metaphysics has full room for that behaviour of agents to which he alludes when discussing the "composition of laws," "heteropathic laws," and the "compounding" of the effects of these. This behaviour of agents displays alike conservative features and creative novelty, both being manners in which imaginal contents appear. Again, the marvellous creative initiative which gave rise to the "heteropathic" laws of chemistry and biology hardens into the uniformities of behaviour of things chemical and biologic, and affords thus a secure basis for further creative improvisations at need. Mere psychical stability or habit is impotent to *create*; and mere creation, which discards the old and effervesces futilely into the new, is impotent to *fix*. The one sort of imaginal manifestation is valueless apart from the other. A two-sided imaginal activity—Vishnu the preserver and Shiva the destroyer and renewer, as it were, in one—is required. The story of an individual, of a nation, of a race, of a planet, of a solar system, of a World-System, exemplifies at length how these two sides of conservative and creative imaginal activity stand to one another. There are, indeed, indefinitely numerous instances in which the two-sided activity can be studied at our leisure.

The C.I., in the regard of the time-process, may be styled Vishnu, the preserver, and Shiva, the destroyer and renewer, in one.

Certain stable modes of action in Nature are often discussed *as if* they were "mechanical." But in all quarters of reality alike activity, whether conservative or creative, is psychical, akin, indeed, to the two sides of imagination which we know in our-

selves, the merely reproductive and the productive or "constructive."

Conservative activity and "mechanical" explanations.

On the lower levels of causation, such as are "described" in statements about the "transference" of motion, we touch depths in which, at first sight, mechanistic explanations work well. But we saw that, at second sight, such explanations are intolerable for clear thinking. All mechanistic explanations are bound to fail. You cannot rest in abstract descriptions of things as perceived from the outside. The surface-phenomena are like a crust which conceals the turmoil in the heart of a volcano. Thus a scattering of billiard balls may be described, for certain purposes, very conveniently in terms of mechanics. It may not be needful to look further in view of the problem in hand. But in view of our problem, the ultimate character of reality, it is essential to look further and deeper. Metaphysics has to explain the actual movements by getting below the surface-phenomena into the interactions of the minor sentient agents or societies of psychical existents implied. Among these minor sentients obtain the *conservative habits* and the *creative possibilities* which we have just discussed. But on these lower levels of causation the habitual actions are indefinitely simpler, and much more slowly altered, than on the level which is occupied by sentients such as ourselves. Even on the level of amœbic or medusic life habit may be considered as approximately fixed; on levels, to which we apply the symbology of "atoms," "sub-atoms," "molecules," "molecule-aggregates" and the like, habits (if the sentients symbolised are regarded in the mass) are so constant and dependable as to allow us to invent

Habit on the lower levels of causation in Nature.

"*absolutely rigid*" laws. To a superhuman, however, who is aware of the interpenetrative minor sentients themselves, a description, in current symbolical language, of what occurs, *e.g.* when billiard balls clash, would be too thin. He would be interested in much more than our surface-phenomena and our need to *predict* phenomena like them. He would aware the complete facts; would possess that adequate grasp of reality from which current mechanistic symbolism, in all its forms, is cut off. Possessing the substance of knowledge, he would ignore the shadow.

How much of the Universe do causal "conditions" include? Many writers, as we saw, expand "cause" into the Universe itself. They proclaim that, to state the cause fully, you must drag in all reality. "The genuine cause must always be the whole cause, and the whole cause never could be complete until it had taken in the universe," observes Bradley. But this view, which startles the plain man and the votary of science alike, seems unsatisfactory.

How much of the Universe do causal "conditions" include?

The causal "conditions," if identified with a Universe like Bradley's (in which time-succession is not ultimately real), include reality which, from our finite point of view, follows the "event," as well as reality which precedes it. However, after what we have said about real time-succession, to wit that it is the Form of Creation, we need not trouble about the first kind of reality. We need not ask, *e.g.*, whether one of the conditions of my writing this page is something that will occur in Saturn *after* the writing is done! We will consider only "antecedent" conditions on the supposition that

time-succession is real, that the past is made reality, and the future a name for reality which is yet to be made.

All "antecedent conditions" are not on an equality.

On this supposition, however, we shall be unable to regard all antecedent reality as on an equality in the matter of conditioning an event. In a manner, of course, anything that happens implies antecedent conditions which presuppose the entire World-System. It is an incident in a developing World-System of *more or less* interconnected things; one System probably among indefinitely numerous other Systems as yet unrevealed to us. But this "more or less" must give us very serious pause. The World-System displays continuity; a continuity, nevertheless, which is compatible, as we saw, with "looseness." The epic contains innumerable lines, but this or that line found in it seems *more or less* independent of its context, can be studied often by itself, and is related with very varying degrees of intimacy to lines in the rest of the poem. Thus, though all the lines conspire to the meaning of the whole, they are by no means completely dominated by the whole. And they do not melt into one another so as to constitute an interpenetration "of all *by all*" in an *impartial* way. This line which connects with, and enters into, that very intimately may be all but unaffected by others. Each is penetrated by *much else* of the epic in a very intimate way; by much else, again, very slightly indeed. Within the continuity of a World-System there obtain degrees of disjunction and conjunction. Notice the character of your own experimental imagining, and you will find that this compatibility of continuity and "looseness" leaps to the eye. The pseudo-

"law" of contradiction need not dismay you. It is irrelevant here to mumble the tautology that contraries are contraries. For experience shows that contrariety in the case under survey is not a fact. Reality in the time-process wears these different features of continuity and "looseness"; and no option is left to you but to accept its ruling.

No given content of a World-System is invaded by all the other contents of the System. Consider the focus of psychical reality symbolised by the concept "atom." An atom is said to be affected by every other atom at any distance—so far as *our* World-System is concerned. But the *manner and degree*, in which it is affected, vary astonishingly with the distance. Consider, again, my lighting of a pipe. There are sunspots in turmoil, vapour eddies in Jupiter, rapids in Colorado, piano-tuning in France, war-dances in Central Africa, hair-curling in Honolulu, landslips in Mars, toothaches in Italy, among the "antecedent conditions" of the pipe-lighting, if you insist on importing a whole prior World-System into your explanation. But even if I admit that all these conditions are "*more or less*" confluent in the World-System to which the pipe-lighting belongs, I am not justified in saying that they are on an equality in the matter of conditioning the pipe-lighting. The assemblage of "conditions" which back my activity with the lighted match, the character of tobacco, the atmosphere, etc., is preponderant. Similarly, if I am accounting for the murder of Caesar, I do not want to call in the entire prior cosmic system of "conditions," as if all these were on an equal footing in mediating the "event."

No given content of a World-System is invaded by all the other contents of the System.

Acorns falling in the forests of Germany and men sneezing among the Eskimo seem of slight moment beside the fact that Brutus killed Caesar. And Brutus killed Caesar primarily because an *imaginal creation* (or thought of what the State would be like without Caesar) occupied the focus of his attention and compelled action. This is the central fact, to which "conditions" are ancillary, and allowance must be made for it in any kind of explanation proffered.

Final treatment of causation deferred.

If our hypothesis is to be an adequate way of accounting for what begins or happens, of explaining the riddle of more or less orderly change, we shall have to give some account of the origin of change or succession in time, in so far as the birth of our own World-System is concerned. Let us, then, defer the final treatment of causation until we have dealt with the origin of change at the outset of our account of the evolution of Nature. This treatment will include, of course, all that we have said heretofore regarding the imaginal dynamic, conservative and creative. But it will include further important considerations as to the *dynamic* itself; and it will show more precisely how the "looseness," which is of such vital import to the time-process, came to exist. Were there not more or less independent agents or "things" and systems of "things" (which maintain themselves *contra mundum* and between which, while they last, there are interactions), the case for the time-honoured belief in causation would fall to the ground.

It remains to add some remarks as to the way in which we are to regard "chance."

15. CHANCE

§ 2. Much that happens in the perceived world and even in our private experience is ascribed popularly and persistently to chance. And in this regard the plain man has not lacked support from philosophers. Aristotle, for instance, mentions τύχη and τὸ αὐτόματον, chance and spontaneity, as co-ordinate "agents" with "Mind" in the production of things; covering, indeed, all cases of phenomena which are not supposed to exemplify uniform laws. It is hardly worth while discussing the abstractions, chance and spontaneity, as "agents." But to what character in the time-process does Aristotle's thinking point? Hegel also, it will be recalled, appeals to chance or contingency when he has to take account of Nature and of the absence of complete "logical" coherence from History. And in impatience of the alogical or sub-rational, we discern the prompting which inclines most men still to make certain allowances for chance. Chance in Aristotle and Hegel.

The strict defender of a systematic "Block-Universe" will say with A. E. Taylor, "Perfect apprehension of systematic reality would be able to deduce from any one fact in the universe every other fact."[1] But there are facts which seem to foul the Universe. And the plain man and even the critical philosopher are apt to retort—What manner of timeless "systematic reality" is this which determines "facts" in ways that we find to be often so stupid, hideous, and contemptible? A great many such "facts," as we shall see when discussing the birth of EVIL, seem Chance as the dustbin of the Universe!

[1] Prof. Taylor is invited to "deduce" Hamlet from its conditions.

foreign to a world said to be the manifestation of a sane god or Absolute. And there is a strong inducement, accordingly, for men to set aside a region for chance in the hope of saving somehow the character of the god or Absolute impeached. The trouble is to discover in what way this convenient chance is to be understood.

On some meanings of chance.

What do men mean ordinarily when they use the word chance to label a happening? They may mean (1) that the happening has no ground of which they are aware, flashing into *their* experience, and defeating, perhaps, some plan, unexpectedly. But in this case the so-called chance-happening is regarded ordinarily as having a ground, which they are unable to find. They may mean (2), as in the cases of the chance-happenings of roulette or *petits chevaux*, that they know *something* of the ground of the happenings, enough perhaps to enable them to list the number of possible happenings, but not enough to enable them to predict one happening in particular. Chance decides in what place the ball stops or what horse comes to rest nearest the winning-post. This view also does not deny that a strict causation may obtain, outside the pale of their knowledge: (3) that happenings may occur without any ground whatever, flashing into being without implying conditions in any other aspects of the Universe. Absolute chance of this type seems barred —every appearance within an imaginal Universe *transforms* something else or, at least, is *added* to the rest of appearances by an imaginal activity which preexisted to it. But there is, nevertheless, an element of truth in the hypothesis of absolute or pure chance of which we shall have to take account.

Absolute chance.

(4) Hegel's view of the contingent ("what may or may not be, what may be in one way or in another, whose being or not-being, whose being in this wise or otherwise, depends not upon itself, but on something else") is not to be whittled down to No. (2), for he insists that the contingent does not belong to our "subjective conception" alone—chance "ranges unchecked" on the surface of Nature and is present also, though as a "vanishing and abrogated element," in the sphere of conscious experience as option or free choice. Bergson's "chance" takes account of creative novelty. "Chance merely objectifies the state of mind of one who, expecting one of the two kinds of order [the 'vital' and the 'inert' or automatic], finds himself confronted with another."[1] Note in this regard that Hegel's contingency is not the absolute chance of No. (3). It is a form of the IDEA which, like the other forms discussed abstractly in the *Logic*, has its application and "due office in the world of objects."[2] Nature, *e.g.*, is in part the thought-determination or category of contingency externalised. It is in situations of *fact* as thus statuted or decreed that we notice the riot of chance. Chance is objective. In this sense of the term a baby is a chance-happening, in that its being and its being in this way and no other are thrust upon it by something else—Nature, and its parents. And in this "something else," again, he finds chance. In all quarters things which are, and are such and such, in virtue of others, conspire to a welter of contingency.

Hegel on chance.

Bergson.

Reverting to the imaginal hypothesis, we are able

[1] *Creative Evolution*, Eng. trans., p. 247.

[2] *Cf.* Wallace, *Logic of Hegel*, "Doctrine of Essence," p. 228.

Chance and the imaginal hypothesis of reality.

to state our own position thus. There are chance-happenings independent of our expectations or "subjective conception," as Hegel puts it. Chance is no "agent," of course, in a positive sense. Nor, again, is there an absolute chance, meaning that happenings occur without any ground whatever. Chance refers us to that freedom which is native to our own imagining and to imaginal powers which conserve, but also create, in the time-process at large. It presupposes agents, but agents which can create freely.

Spontaneity and the world-process.

If I could take the place of the C.I. and become aware of this particular World-System of ours as a whole, I should enjoy a process *continuous* in that (α) it lies within conscious grasp and (β) has elements which show interpenetration of "each by much else," but *discrete*, in that it changes by steps or pulses, just as my developing poem or romance changes by abrupt increments, and not by infinitely graded transitions. All the stable aspects of this cosmic poem are the C.I. as conservative, even amid change; all the novel aspects are the C.I. as creative; Vishnu and Shiva in one! Now any imaginal novelty, from a fresh step of cosmic importance down to one of our humble human novelties, *e.g.* an art-creation or choice, bears its mark, which is this —it has, on the one hand, "*prior conditions*," but itself, on the other hand, has come from nothing. For the distinctive character of novelty is that, in the respects in which it is novel, *it has no forerunner*. It is thus a flouting of mere sameness and mere dependence on the pre-existing wealth of the Universe: is a product which attests free or spontaneous creation. This is the spontaneity which has carried

the world over the great "critical points" in what we are pleased, speaking popularly, to call "inorganic" and organic evolution. We note it in the origination of the thing-complexes and their behaviours which underlie the "heteropathic" laws of chemistry and biology. These thing-complexes and their modes of behaviour did not pre-exist mystically to their evolution. They are portions of the developing romance of creation. They *are* and are *what* they are as the expression of free initiative; not realising merely a preimagined plan, big with the future, but showing further that step-by-step improvisation, by which the surprises and conflicts in the detail of Nature and History are met and transformed.

Why the world-process contains "surprises" which are not features of a merely unitary development.

Do not shy at this word "surprises" and ask, in conformity with theological tradition, how a so-called World-System can contain them. With the "corruption of eternity" in the time-process, the *multiple* modes of Nature and the *multiple* finite sentients tend to break away, we saw, from the particular World-System to which they belong. What ensues? *They also create and with relative freedom* in a manner that hampers in great degree the unitary creative effort of the System in which they are active. There arises a welter of creation at cross-purposes. The particular World-System, inchoate and not controlled fully by itself, resembles the infant Hercules fighting with serpents. It is only very slowly that anything like tolerable harmony dawns on its career. The infant is wrestling desperately yet in this year of the Great War, 1916. All that young Hercules can do, on the basis of "prior conditions" largely given by quasi-inde-

pendent anarchic powers and including inevitable "surprises," is to *improvise* successive "solutions" which turn passing situations to the best account. And this process with its unstable resulting harmonies, overt discords, and further unstable harmonies is one long appeal to the imaginal spontaneity which originates and pours forth the new.

"Occasions for creation *ad hoc*"

Thus in production of novelty on the cosmic scale the "antecedent circumstances" or conditions, which bulk so largely in causation controversies, are occasions for creation *ad hoc*; just as the "antecedent circumstances" in the cases of Shelley or Turner or Shakespeare or Phidias are occasions for *their* creative work. Such novelty does not emerge from its "conditions." If, indeed, it is in the conditions already, it is not novel; and if it is not in the conditions, it is not derivable or deducible therefrom.

Spontaneity and "law."

Aristotle called in spontaneity and chance in view of phenomena which did not seem to him to display regular laws. There is no evidence for the belief in absolutely rigid causal laws. But if we are to recognise approximately rigid laws in *many* regions of phenomena, we can regard imaginal spontaneity as their original source; once novel modes of behaviour having become stable or habitual. "Laws" are relatively stable aspects of that which alters all its modes in their turn.

Spontaneity, bridled by that conservative or stable behaviour, of which we have spoken, marks creative evolution on the *cosmic* scale.

Spontaneity as manifest in interacting particular things, *e.g.* among the nature-modes in their "loose" multiplicity, provides the field of true objective chance, or rather of chance-happenings. We are not confronting a unitary World-System which develops with *unbroken* smoothness. We have to allow for the quasi-independent "things," masking sentient lives, which have arisen within it. All these "things" are creative too—they are modes of imagining; they continue the character of their source and they are *many*. And indifferent to, and unconscious of, the World-System as a whole, they create and expand very largely at cross-purposes. Among the chance-happenings that come to pass, abominations, such as perplex the old-fashioned theist, see the light. Imagination, we may say, runs amok very freely in the depths.[1]

The field of chance.

There are novel happenings, then, the being and the character of which are not altogether dictated by their antecedents; happenings which appear within the stream of time more or less abruptly. And these happenings, not educible out of their "antecedent conditions," infect all other related phenomena with chance, and are further infected by the chance aspects of these others as well. Chance is born when spontaneous creative initiative shows within the *detail* of the world-order. And a right instinct of most men recognises that some unforeseeable initiative of this kind does obtain in the realms both of "inorganic" and "organic" life. For the moment we need not enter into a full consideration of spontaneity as it shows in ourselves.

1. One way in which chance infects time-sequence.

[1] *Cf.* Part III. Chap. IX.

Hegel had in mind, when he discussed "contingency," things which *are* and are *what* they are in virtue of other things, which again *are* and are *what* they are in virtue of others and so on. But we are urging, not only that A is "contingent" as leaning on B, and B as leaning on C, but that A, B, and C all comprise happenings which do not proceed wholly from "prior conditions," being of the nature of unforeseeable gifts to reality. And each one of these gifts tends to alter everything else! Chance is a feature of imagining in creative evolution.

II. Another way in which chance may infect time-sequence.

But this is not the only way in which chance may infect the detail of the time-order. If time-succession in our corner of reality is finite, if it *began*, there was an initial situation not mediated by change. In this situation appear a variety of (what we may term provisionally, in language borrowed from Mill) "coexistences *independent of causation*"; primitive agents, whose qualities and quantities are presupposed by the time-process. Thus contemplating the solar system, as it exists now, I can tabulate its proximate conditions as A, B, C. . . . Then I can pass beyond these ever backward, until I reach conceptually the primitive conditions or agents X, Y, Z . . . at the dawn of time-sequence. These agents X, Y, Z . . . their qualities, quantities, and original relations, must give us very serious pause.

Thus the determinist tells us airily that conditions A, B, C . . . "meet" in the solar system, which "results" necessarily from them. We have noted flaws in this contention; we are to note yet another. How is it that the conditions "meet" in

this way at all? Well, obviously, to account for their "meeting," we shall have to work back and back in thought until we reach the primitive agents, their numbers, characters, and relations. But if *these* were "coexistences *independent of causation*," all subsequent conditioning of events must be reconsidered in the light of this fact. The primeval situation has imposed conditions, not themselves "caused," on the future. Spontaneity—nay, chance—showed, perhaps, in the beginnings.

On the supposition, already endorsed, that the time-flux is finite, we have to consider from what source primitive agents gushed forth, and to suspect that this source may reveal spontaneous imaginal initiative yet once more. It may be that chance also, manifest at the very beginnings of change, has coloured the entire story of our world.

16. On Conservative or more or less Stable Features in Change, with some Further Remarks on "Laws" and on "Universals"

§ 3. A Heracleitus or Bergson directs attention to the flux or changing features of reality, but it is vital, withal, to bear in mind that change implies that which endures; also that experience is, in part, of more or less stable phenomena, many of which obstinately resist alteration, and many of which (as in cases of cycles of events, astronomical, climatic, etc.), when altered, protest practically against change by trying to recur. Again, the symbology of the "conservation of Energy," inadequate as we found it to be, affirms that causal conditions are "*conserved*" somehow in events. "Energy" is a symbol which furthers *stable* quanti-

Conservation in the heart of creation!

tative predictions; which predictions are verified because certain modes of changing in Nature are approximately *stable*. Note, however, by the way, that stability in changing is not secured by a rule that the "same" conditions are followed regularly by the "same" events. There must be provision for the conditions concurring more than once. There is required, in short, a "uniformity of events," as Dr Schiller observes,[1] failing which the rule that the "same" conditions issue in the "same" events would not rescue the world from chaos or enable us to predict to profit. The relative rates of change in creative evolution must be such that the "same" conditions can concur regularly and stably *here*, while novel conditions are concurring *there*; a far-reaching conservatism being as essential to a cosmos as it is to a political state. It is in this co-operation of the conservative and the creative that we can detect one of the most striking expressions of the purposiveness of the world-process.

Do not over-accent the reality of the flux.

It is pointed out by Mill that ". . . most phenomena are in their own nature permanent; having begun to exist, they would exist for ever unless some cause intervened having a tendency to alter or destroy them. Such, for example, are all the facts or phenomena which we call bodies . . . such, again, are the positions in space and the movements of bodies. No object at rest alters its position without the intervention of some conditions extraneous to itself; and when once in motion, no object returns to a state of rest, or alters either its direction or its velocity, unless some new external conditions are superinduced. It, therefore, per-

[1] *Formal Logic*, p. 300.

petually happens that a temporary cause gives rise to a permanent effect." [1] The "inertia," in virtue of which a body persists in rest or movement, describes a conservative feature of reality; but we must avoid interpreting "inertia" as sluggishness, and recall that *nothing is inactive and nothing is determined solely from without.* Among obtrusively stable phenomena the silicates of the earth's crust, a diamond, or a piece of platinum, contrast markedly with much of the "flux," so slow are their rates of change. Why over-accent the transitoriness of phenomena, and overlook these relatively permanent things or enduring events? For in the spheres of astronomy, geology, biology, and other sciences the thing that is relatively permanent plays, in fact, a most important part. In psychology, again, we are apt to talk glibly of the "flux," and to forget the more stable contents over against which the fleeting ones come and go, like wisps of cloud travelling across a blue sky.

All phenomena endure more or less. And the minimal steps of change, by which they alter, also have their duration, but *without internal lapse.* In these vanishing minimal durations is echoed, as it were, that primeval duration, *without internal lapse,* of which time-sequence is a "corruption." And all the stable aspects of complex phenomena—and more particularly the stable visions of intellectual achievement, of art, and religion—remind us distantly of that changeless conservative life of the C.I. which is what men ought to mean when they use the word "Eternity." But conservative activity, as it shows in a world of *chance and change,*

Echoes of Eternity in time-sequence.

[1] *Logic,* Book IV. chap. XV. § 1.

partakes, of course, of the imperfection which mars all else in the time-process. Too often it stands for the obstructive, stupid, for mere persistence which disdains adaptation to life. Persistence of this kind, either in "rest" or in some fixed direction of change, which no ingenuity can label "reasonable," is illustrated interestingly by phenomena such as the evolution of the antlers of the Irish elk,[1] the overgrowth (which is preposterous and subrational) of the sexual instinct in Man, the obstinate enduring of so many useless organisms, and of effete and even noxious religions, political creeds and beliefs of all sorts. There is an "inertia" (so-called) in the domains of biology and psychology as well as in those of meteors, stones, and stars; and the activity implied frequently does not subserve purpose sufficiently to permit of its being called "rational." The survival of "Formal logic" to-day seems a case of subrational continuance of this sort. This logic is, strictly speaking, what Dr Schiller has called it, nonsense, but it maintains professors and recruits students, in virtue of a prestige dating back to the third century B.C. Outside the examination-room or professors' lectures no one takes this "science" seriously. No one gains

Subrational conservation.

[1] In a lecture on "Recent Discoveries of Early Man," Dr Smith Woodward, beginning with an explanation of what is known as "momentum" in organic development, "showed how one particular structure may keep on growing in the successive structures of a species, until it *seems to have no power to stop, sometimes entirely outgrowing its usefulness, and even leading to the extinction of the race.*" An example in illustration was the monstrous growth of the antlers of the Irish elk, "a pair of which had been found with a span of twelve feet, so that it is for us almost impossible to conceive how the creature could carry them."

inspiration from it whereby processes of actual reasoning are made clear. Still—it persists.

The stable "laws" of science. The obsession of quantity.

We have had something to say already respecting the ordinary "laws" or generalisations of science; terms which refer us to the *stable*, conservative regularities or uniformities which are observed in the flux. With precise practical predictions in view, men of science incline to magnify the importance of the quantitative side of these regularities, and to declare, *e.g.* with Mach, that the laws of Nature are "equations between the measurable elements of phenomena." But very many "laws" (which include statements about mental processes, social life, etc., as well as about Nature) are concerned primarily with qualities and not quantities, and do not lend themselves to exact numerical formulation at all. And often even in the regard of Nature (*e.g.* in biology, when we are discussing "laws" of evolution, Darwinian or other), we are thinking primarily of qualities and only in a very secondary and vague manner of quantity. It is well not to be obsessed by this cult of quantity. Practical purposes apart, precise measurement becomes easily an "idol of the cave."

What the laws of Nature truly are.

It goes without saying that Newton, Ohm, Darwin, Joule, Helmholtz, etc., are not interpreters of a celestial legislature. The "laws" of Nature are not even remotely analogous to legal enactments. The stormy south-west winds that blow over western and south-western Europe in winter are not "obeying" a decree which Buy Ballot, or some other studious meteorologist, records. Nor, again, are they types of eternally fixed verities above time which condescend

to embody themselves somehow in particulars. All this kind of talking is mythological mysticism of the baser sort. Say rather with F. C. S. Schiller that "objectively regarded, the laws of Nature are simply the *Habits of Nature*, and it is the rule of Habit that makes the whole world kin. . . . It is thus because things have habits that we can understand them and exploit them." [1] It is on this basis of habit that our law-finding, whether it aims at precise quantitative measurements or not, must rest. There is a conservative, as well as a creative, side to the time-process. What are now habits were once innovations. They may not last indefinitely. The history of Nature deals in part with the theme of cosmic habits; it can offer us no guarantee that any or all of them will endure for ever. And if we are interested in a conservation of *values*, it is well, indeed, that "laws," understood in this way, are not immune from the gnawing of time. Much, very much, of reality were best destroyed.

Habits!

A law regarded as a "universal" is supposed to be identical in all its instances and to affirm a "connexion of attributes" which is eternal. And the "universals" of science still figure prominently in many text-books of logic and philosophy. But "universals," which rest on observed co-existences and sequences, must not be taken too seriously. "What is the value of an eternal connexion save as a guarantee of particular judgments (applications) and a guide to the prediction of happenings? The scientific 'law' or universal is no doubt more valuable than a particular observation because it

A "law" regarded as a "universal."

[1] *Formal Logic*, p. 314.

can lead to an indefinite number of such observations. But for all that all scientific generalisations are constructed on a basis of particular observations, and must ultimately show themselves relevant to the course of events. If they fail to do this they become unmeaning, and, sooner or later, we balk at calling them 'true.'"[1] In an imaginal Universe in which change is real, "connexions of attributes" are, perhaps, experimental. Such fixity as may obtain illustrates the conservation of values — of combinations such as conspire to the perfecting of cosmic life. Uniformities of no lasting worth tend to disappear.

Laws which cannot alter — by our decree.

"Laws," then, of this sort are true or false as *mutable* reality dictates. But, again, there are "laws" which cannot be falsified; "laws" relevant to those kinds of reality which *we* decree to exist by command-concept, and which, by this command, are not mutable at all. Thus it is a stable verity that 2+2=4. It is not, indeed, true that two added to two in the concrete world of events always "make" four. Two raindrops added to two others may "make" one; 1+1 unicellular organisms, in total conjugation, may become one. But the numerical statement is true of a domain in which distinguishable points do not suffer change, but remain stably distinguishable. In this domain two points and two points do not "make," but *are*, four. There is no Kantian "synthetic" magic as regards the points themselves. Nothing happens among them. And we have to safeguard the "law" by supposing that nothing can happen. We ignore

[1] F. C. S. Schiller, "The Import of Propositions." A Symposium. *Proc. Aristotelian Soc.* 1914–15.

the familiar experiences in which two and two so often become sensibly one or five.

2+2=4 means that the *same* points are viewed with a novel purpose. As nothing *ex hypothesi* happens to the points themselves, it is not surprising that they are always four. They are four, however, *before* our "addition" as well as after! So that to regard this "addition," as so many writers have done, as amazing mental miracle seems a trifle absurd. Parturiunt montes . . .

The Cloudland of "universals."

§ 4. "Universals" have always been a source of trouble to students of philosophy, furnishing a theme in which obscurantists take natural delight. Avoiding the customary ascription of timelessness,[1] we might define a "universal" as "anything which may be shared by many particulars."[2] But our path will not be free from thorns. We have been surfeited with verbose discussions of "universals" in the past; and the confusion rife in this branch of philosophical controversy is worse, perhaps, than that in any other. Feeling myself in the presence of many conflicting speculations at cross purposes, I propose to drop controversy in the main and merely to suggest what is the position of "universals" in an imaginal Universe.

The first thing to note is that the "universals" of controversy cannot be dealt with in the mass. They are not all on the same footing. Some realities which are "shared" by "many" instances are truly

[1] Only the consciousness of the C.I., regarded abstractly, is above time in this sense at all.

[2] This is Bertrand Russell's definition.

eternal—others come and go. Some again are "universal" in a further sense that they are present in all regions of reality; others show only here and there.

The fundamental universal "shared" by "many" instances is the continuum-side of the C.I. itself—the universal *con*sciousness. This is shared by all sentients in so far as they are aware of anything whatever. On the side of content, also, there are realities which are "shared" by particulars. But we do not require to suppose existents of the Platonic sort, and to sacrifice concrete thinking to the cult of a conceptual Back of Beyond. Timeless and supersensible content-"universals" are gratuitous assumptions, and expose philosophy to the charge of taking joy in the unverifiable.

The fundamental "universal" consciousness.

"Universals" on the side of content.

Keep your thinking about such content-"universals" concrete; striving thus to approach the concreteness of the Cosmic Imagination. The *conceptual* "universal" must go. The clue to our meaning is grasped readily. Consider the alleged "universal" of Colour, not the concept which *we* humans use in thinking, but the cosmic thought-reality which is supposed to exist whether *we* happen to think of it or not. We could not believe that this thought-reality exists in the C.I. as an abstraction "above" sense and time, as a *colourless* form of conception which does not even *endure*.[1] Nor, again, could we believe that it is any one special colour. It is rather the SYSTEM OF ALL COLOURS

The Imaginal!

[1] Even if it endures or "lasts," as the plain man would say, without change, it is not "above" time. Duration, as well as succession, is time.

which the C.I. includes ; a class of *imaginal* variety, the members of which would be similar to the reds, blues, etc., which sensible experience reveals to us. It is not, accordingly, supersensible, and, since it and its members at any rate endure, not above time. We might call it an Imaginal, in order to get rid of the associations of Platonic intellectualist mysticism. To *know* this Imaginal fully it would be necessary, *not to escape from sensible perception, but to perceive in the fullest possible way.*[1]

A vital difference !

The *special identity*, which unites members of this system or class, entitles them to be considered apart and to be regarded as an order articulated in a unique way. But there is no Imaginal outside or above the actually related colours as they appear in the divine intuition. The Imaginal, as a schoolman might say, is wholly present " *in rebus,*" and among these " res " are the things which we mortals know as sunsets, pigments, and skies. There is no call to believe in any further " noetic " mystery ; the sensible, as present to the C.I., is divine thought itself.

Consider, again, the case of the alleged " universal " of science already discussed—the " law."

The "law" of science again. The case of Gravity.

"Sub-atoms," which are said to gravitate, behave, under very like conditions, in very like ways. The " law " here is no timeless reality existing in its own right : it is what it is only because the things which interact are what they are. Its " instances "

[1] This contrasts sharply with the saying of the platonising Hegel, for whom the universal is " neither seen nor heard, its existence is the secret known only to the mind."

occur only during this interaction, and itself, were the interaction to cease, would disappear. But the "sub-atoms," in this event, would survive their change of behaviour. We cannot, therefore, admit that a "law" of this kind exists in the C.I. quite so securely as does the Imaginal of Colour just discussed. In the cases of many "laws" of "connexions of attributes" we have no assurance that the "instances," which embody them, will recur indefinitely in the flux of time. These "universals" at least may be doomed to vanish along with their vanishing "instances." If, however, the "instances" do not die out of the cosmic memory, but are conserved in that "made reality" which the C.I. harvests from the creative process, the "laws," as we understand them, will be conserved as well—only, however, as aspects of that total *imaginal* wealth which is present to the concrete divine intuition.

The Hegelian "universal," a phantom grasped only by "reflection," is a makeshift of defective human mentality. The highest experience contains not content-"universals," but *Imaginals* having a richness surpassing even our perceptual type of knowledge.

On content-"universals" in general.

If the mark of "universals" is that they are "shared" by instances or particulars, the list of "universals" of different sorts will be interminable. But one commanding consideration applies to them all. Such existents, about which *we* form concepts, are not themselves conceptual in character, but exist in a richer and superior form as aspects of the concrete intuitive cosmic imagining. Concepts are modes only of finite conscious *grasp*. It is quite unnecessary to suppose that these forms of *grasp*, useful

and indeed indispensable for ourselves, acquaint us with the manner in which the C.I. enjoys and grasps its contents. The C.I. comprises, indeed, concepts, because, in one of its creative episodes, it comprises us who use them. The point is that it does not *grasp* us and our characteristics in a conceptual way.

Writers have spoken of "universals" even in respect of such relations as "to the north of," etc. It is difficult to be sure as to what they have in mind. If they mean that there is a cosmic space-order "shared" by the experiences of many sentients, the statement holds good. But relations in this cosmic space-order, it must be added, in no way resemble the Hegelian type of "universal," which is *imperceptible* and merely known to "reflective" thought. They are aspects of imaginal concrete thought, and are discussed conveniently as Imaginals. Viewed in this light, space "relations" can be interpreted without difficulty on the lines already suggested.[1]

On a subtype of "universal" which has played a part in philosophy.

There is a subtype of "universal" which has played a part in the history of philosophy, and which merits notice before we pass on.

Exemplars of "Natural Kinds."

Consider the concepts of certain "Natural Kinds," lions, oaks, palms, etc., which figure prominently in some schemes of creation. Writers have held that these concepts, exalted into "universals" of cosmic standing, are the archetypes of sensible forms. Though "visible only to reflection" the archetypal Kind underlies somehow the plural particular instances of it (lions, oaks, etc.), which are

[1] Part II. Chap. IV., § 6, "Relations."

revealed to sense. A strange hypothesis, but one which the bankruptcy of mechanistic biology, now obvious, may revive. Criticism runs as follows.

On archetypes that might be conceived as changeable and even numerically particular Imaginals.

§ 5. If archetypes did pre-exist to the evolution of such sensible forms, an issue which we must defer to another occasion, we can at least be sure of this. They were not "conceptual" ghosts, but, on their own level, *imaginal* exemplars; exemplars, not superior to change, but plastic as are the models in a human inventor's thought. And they might be imagined, I presume, with a view to a new world-order, even by a finite god or gods. The exemplar of the Kind might be a numerically particular model, and only *become* "shared" by "instances" when copies of it saw the light. What a striking reform of belief in the archetypal Kind is possible!

It is very notable that such an archetype could begin as a unit as particular as one of Turner's pictures. It could be discussed as "universal," in one sense of this much abused word, when, after the production of other things like itself, it had features which were common to, or "shared by," many particulars. Still, like the Turner picture, it would have a date of origin, a numerically particular reality, and would be subject to change. And even if it were to perish, its copies, I presume, could still endure. Clearly we have here something very different from the old Platonic "universal" (the superparticular, supersensible, immutable ground of changing particulars), and this new candidate for notice seems worth attention. For the present we are content with emphasising once more the variety

of the problems which this word "universal" may suggest.

The Imaginal again.

A sensible archetype of the sort suggested would be just a particular Imaginal. It will concern us later to decide whether such archetypes exist or have existed. So far we have come to no decision in the matter.

Enough has been said for our present purposes in respect of this topic of "Imaginals," to which we shall return. Let us attempt now, on the basis of foregoing speculations touching the C.I. and its more important features, to form some idea of the manner in which the Evolution of Nature, "inorganic" and "organic," came to pass.

§ 6. Reverting, however, in passing to the question of a "classification of Nameable Things," noticed previously in connection with Mill (Part II. Chap. II. § 1), we can state now decisively the general form which it must take. Ultimate Reality is the Cosmic Imagination or Imaginal IDEA, of which all alleged "other" existence is merely a form or mode. This IDEA, at once conservative and creative, includes all the phenomena variously labelled "relational thought," "will," "pleasures and pains," "æsthetic feeling," "modes of Nature," and the like—everything, in short, which bears witness to its actuality by appearing in our sentient experience. And not only the varied *contents*, but also the *conscious* centres in which the contents show, belong to this Imaginal IDEA. A classification of Nameable Things presents, accordingly, no great difficulty, and can be made at leisure on the basis of investigations such as are exciting our interest in the course of this essay.

The "classification of Nameable Things" no longer presents any difficulty.

Part III

CHAPTER I

PRELIMINARY OBSERVATIONS RESPECTING "NATURE" AND "EVOLUTION"

§ 1. "THE Universe," writes Bergson, "is not made, but is being made continually. It is growing, perhaps indefinitely, by the creation of new worlds."[1] This saying may gall believers in the Absolute, but it cannot, for that, be endorsed by us without qualification. The Universe, that is to say, the Cosmic Imagination in the widest meaning of the term, is hardly such as to "grow." It is only a finite reality or content of this Imagination, which can "grow" so that, after the "growth," it comprises measurably more than it did before. The true ocean of the infinite, on which creations are ripples, transcends growth by transcending measure. Further, the Divine Life, we had reason to think, is not characterised by perpetual flux. It is rather a conservative activity, the ἐνέργεια ἀκινησίας, which *may* contain, indeed, real time-successions and with these creative episodes, but even so not under constraint of any eternal necessity. Time-succession is but the form of creation; and it is native to the *freedom* of Imagination whether there shall be creative episodes or not.

The Universe does not "grow" nor does it comprise, of necessity, change.

[1] *Creative Evolution*, English translation, p. 255.

§ 2. We are committed to an attempt to rethink one of these vast creative episodes, one which is big with the destiny of mankind. And for the present we shall be discussing only an aspect of this episode, to wit, the Evolution of Nature, or rather such portion of it as took place before the appearance of animal and human sentients on this planet. We are to recast what has been called Nature-philosophy in the light of our main hypothesis. We shall be dealing with such topics as the Primeval Appulse, the genesis of time-succession, space (extensity), and causation, the birth of "law," immanent design, objective chance, order and disorder, the foundations of so-called inorganic evolution, etc., closing the account when the story of the animal sentient is reached. This further story and the momentous developments to which it leads will be treated at appropriate length in a forthcoming volume.

Nature-philosophy in the light of our hypothesis.

§ 3. We are to rethink, then, one of these vast creative episodes. To be aware of it adequately would be to reimagine it whole just as it was present to the imagining of the C.I. This being impossible, we have to make statements selectively *about* it, according to some plan, treating it at a distance as a process to be glimpsed only at points. We have to substitute for an ideal of complete vision the makeshift devices of conceptual thought; craving for an exalted intuition we have to put up, for the most part, with the husks of representative knowledge. The mystic of the market-place protests loudly, but he, too, when pressed, has no better fare to give us. Slowly there falls away the Hegelian hope of full grasp of the dynamic of the IDEA. The

On difficulties which compel cautious procedure.

"episode" outruns our thinking; it was not woven on the loom of conceptual thought. Note further, to still rash pretensions, that we are seeking to rethink one only among, perhaps, innumerable creative "episodes," past and present. Nature, as we are to discuss it, may be in large part peculiar to the corner of reality in which we arose; merely one of an endless variety of Natures into which the C.I. pours its wealth. This reflection is sobering. We are reading at best only one poem in which the infinite imagination has taken shape. And even within this one poem the greater portion of the text may be escaping our view. There may exist an indefinite variety of "unseen worlds" and modes of conscious life, at present shut off from human knowledge, but organic, withal, to this one system of Nature which we call "ours." It is well, therefore, not to come to our task with the air of men who, having learnt some trifles from science, hold themselves henceforth omniscient as regards matters-of-fact. It is unwise, let us contend, to urge, in post-Kantian vein, that there are no important worlds "beyond the stars," or that the IDEA is fully aware of itself in mankind, the supreme expression of conscious life! The Universe is a much more serious affair than this; and it can profit us nothing to draw laughter from the gods.

There may exist and have existed innumerable creative episodes and Natures.

And even of the detail of "our" system of Nature we know probably extremely little.

§ 4. The method of speculation as to the birth of imaginal Nature is itself imaginal in an eminent degree. I cannot, *e.g.*, *observe* the Primeval Appulse, and, with that before me, make selective statements as to what is taking place. "Induction," in the popular sense of the term, is barred. Again, I cannot *deduce* the character of the Appulse from

Imagination and hypothesis.

events which are occurring in creation now. Novelties have come to pass; the oldest strata of Nature are in part lost to view; the past has changed into the present with the inconstancy of a sunset cloud. What, then, am I to do? First and foremost, I must adopt Blake's advice and *try* to expand my imagining into the imagining of "God"—or, as we prefer to say, the C.I.—and on this basis construct hypotheses *to be applied to, and tested by, phenomena such as the world-order presents now.* This sort of "intuition" may prove of genuine service to philosophy; the avowedly experimental character of the venture, and the appeal to experience in the testing of its results, secure us from risks. Hypotheses we require, and hypotheses, not lying ready to hand, have to be constructed. There are no means of progress on other lines in sight. I will, therefore, refer critics back to the important observations anent intuition and hypothesis made in the Introduction,[1] adding that we may expect quite hopefully that human *imagining* will hold up the mirror to that wider *imagining*, which includes Nature, and achieve some slight measure of success. It may well be that, despite the fragmentariness of our insights, despite compulsory resort, for the most part, to conceptual makeshifts, we shall secure enough truth to justify the hazards of the venture.

§ 5. We have admitted, because we must, that there may exist innumerable Natures other than the system which we call "ours." And we have allowed, further, also because we must, that very much, perhaps most, of "our" system of Nature may be

[1] Part I. Introduction, § 5, "Intuition and Hypothesis."

closed to our *present* perceptions. There are, doubtless, undiscovered countries, "unseen worlds," having teeming populations super- and subhuman, which complete the details of this system. Room for such possibilities must be left by all sane thinkers. Now clearly we cannot rethink undiscovered details in the course of our Nature-philosophy; and a deadlock, it may be urged, is inevitable at this point. But then we do not deal directly with the *details* of even the familiar modes of Nature, astronomic, chemical, geologic, biologic, etc. The business of Nature-philosophy is not to pen a history of the evolution of a particular Milky Way, solar system, planet, or kind of organism; not to raise debates about the doings of mice, men, the denizens of Mars and "ethereal" and "super-ethereal planes"—these matters and the like fall to the province of science, as ordinarily understood, or as expanded to cover new fields. We have no special interest in Borderland mysteries, leaving, indeed, this domain mainly to "metempirical physics" and psychology. We do not ask with the modern Magus (an authority on unseen worlds *only*) what modes of telepathy obtain in the 7th heaven, or whether "transfinite cardinals," on the "astral plane," wear red robes. Interesting in itself this information may be, but it is quite irrelevant to our present purpose. We are concerned here with the wider characteristics of things; with such fundamental features of reality as further understanding of Nature *regarded as a psychical whole*. And, in dealing in this general way with the genesis and standing of Nature, we are relieved from the need of having to be informed as to what goes on in its every nook and corner. Newton could discuss the earth's greater movements without

The province of Nature-philosophy.

reference to the minor movements which occur in a city, factory, or watch. We can discuss the larger aspects of Nature-philosophy without waiting to examine every sort of world and organism which "our" particular Nature-system may happen to include. To make use of a convenient metaphor, we are attending not to particular things, but rather to the common *connective tissues* in which they are set.

There is no radical difference between the contents of conscious experience and Nature.

§ 6. In the eyes of the dualist, even now by no means extinct, Nature is a collective name for space-hung, time-strung phenomena—some transient, some again relatively permanent, and all showing uniformities of connexion or laws—which conscious spirit becomes aware of, but does not create. The things in this order of Nature have no conscious reality in their own right; differ radically from Spirit, and exist independently of their presence to it. This contrast of Spirit with Nature, which it merely encounters or confronts, used to be a staple doctrine of popular philosophy. It persists, in a refined form, in the writings even of Bergson.

But there is no *radical* contrast between what we know directly in our conscious experience and the things which obtain in the order of Nature. There is no such existent as bare consciousness which can come, devoid of content, to Nature. And there is no sensibly perceived phenomenon of Nature which could not be duplicated in the content of a merely solipsistic spirit or centre of conscious life. All that I perceive I could, theoretically speaking, fancy, even if nothing but my fancy existed in the Universe. Even as my limited powers go, I confront in special dreams and vivid picturing

worlds private to myself, yet more remarkable in many ways than the world of workaday sense—worlds with space-hung, time-strung phenomena, showing bright colours, sounds, smells, warmth, cold, "resistance," etc., along with an incomparably superior plasticity. It seems that anything which I can *perceive* could appear in this *fancy*, from which the dualists' Nature is, by hypothesis, shut out. I am unable, therefore, to allow that perceptions attest the reality of existents which are radically different from the essence of sentient life.

But we have already laboured this point and have decided in favour of an idealistic theory of experience. And we meant by idealism, not the belief that reality exists only in and for insulated "minds," including, I suppose, those ascribed to slugs, black-beetles and mice; not a "subjectivism," as it is called, which converts even an ant or amœba into a god, but simply the conviction that reality is always fundamentally akin to our conscious experience which *samples it*. There is a real Nature—more rich, indeed, than even neo-realists will allow. Independent of us as to its existence, it arises within that universal experience which we have called (since it resembles our own imagining) the C.I. or Imaginal IDEA.

Visible and tangible Nature, however, is not to be regarded merely as content akin to the representations with which we play in fancy. It *masks* without question collections of innumerable sentients, not to be classed merely as contents, but rather as centres of consciousness which are *aware* of contents. This, indeed, is now a widely accepted

Nature masks indefinitely numerous sentients.

view. "What appears to us in sense-perception as physical nature must be a community, or a complex of communities of sentient experiencing beings; behind the appearance the reality must be of the same general type as that which we, for the same reasons, assert to be behind the appearances we call the bodies of our fellows." [1] And Professor Taylor adds justly that "much of Nature presumably appears lifeless and purposeless to us for the same reason that the speech of a foreigner seems senseless jargon to a rustic who knows no language but his own." There is need, indeed, to suggest that some of these societies may be of types far superior to our own. (We shall recur to this point in due season. It is noticed here because it bears obviously on the problem of the correct interpretation of Nature.) Nature, then, is (1) akin, in point of its *contents*, to the contents which fill our own conscious lives; (2) masks with these contents countless societies of sentients who exist not merely for others, but are *aware of contents*, just as are mice and men.

Idealistic attitudes toward Nature.

§ 7. We are nearing, if slowly, some working definition of Nature; on the way to note the marks which the aspect of any "creative episode," thus named, must bear. Let us glance, as we go, at some characterisations of Nature penned by idealistic thinkers. For Emerson Nature is the "projection of God into the unconscious." This view, duly translated by us, seems to assert that the C.I.

Emerson's.

[1] Professor A. E. Taylor, *Elements of Metaphysics*, p. 209. There is a long vindication of this manner of inferring real "ejects," major and minor, to be found in my *Individual and Reality*, p. 99 ff.

extrudes its *content* somehow out of itself into an existence unlit by conscious life. But the contents of Nature cannot swing thus utterly clear of the C.I.; while they mask, as we noted, societies of indefinitely numerous sentients. An even more important contention, in regard to this masking, is awaiting us.

Schelling's. Schelling, an objective idealist, regarded Nature as the unconscious primitive poetry of Spirit. Poetry—the word is a happy one. But let us add, as against German "philosophers of the Unconscious" from Schelling to von Hartmann, that only *conscious* power creates and takes joy in poetry and art generally, and that a doctrine of the All-conscious is required as soon as we come to discuss conscious sentiency as well as content. I need not repeat at this stage that the hypothesis of the conscious C.I. is of no use to reactionary thought, being hostile to theological belief in an infinite *personal* Ground.

Hegel's. Schelling wrote of the "Odyssey" of Spirit in going out of itself into Nature, the parts of which, again, are outside of one another. He gave the cue, doubtless, to Hegel, for whom Nature is the IDEA as "other than itself and at the same time outside itself"; this *self-externality* characterising also subordinate contrasts within Nature. Nature "unconscious and uncontrolled by itself" is discussed in that portion of thought which concerns reality in so far as it is "seen from the outside." Bradley's. Bradley's view is given in "Appearance and Reality." Nature is "that part of the world which is not inseparably one thing in experience

with those internal groups which feel pleasure and pain. It is the attendant medium by which selves are made manifest to one another. But it shows an existence and laws not belonging to those selves ; and to some extent it appears indifferent to their feelings and thoughts and volitions. It is this independence which would seem to be the distinctive mark of Nature." Bradley does not make it clear how this " medium," in which " selves " are set, stands to the super-rational Experience which he substitutes for the Hegelian IDEA. The Experience alone is aware of the secret. His characterisation of Nature lacks precision and certainly does not go deep enough for our purposes, which include the safeguarding of a real time-succession.

Initial statement of what we mean by Nature.

Having noted the valuable suggestions in these views, we are prepared to make an initial statement as to what we mean by Nature. It is not a statement to be made in a breath ; and there will be deepenings of it at successive stages of this essay. To enable us to form a working-notion, round which thoughts may crystallise, there will be some forestalling of results.

Let us discuss existing Natures (which may be innumerable, and not directly related to one another at all) as one Nature. What is the standing of this ?

Prior to the genesis of Nature the C.I., a conservative activity, *endures*, not indeed timelessly, but without change of content. It is a harmonious unity of consciousness and content ; these latter being its continuous and discrete aspects. Con-

sciousness, as its etymology suggests, is the activity that grasps, knows *together*, or *co*-awares. In being what it is, however, it implies also content, and shows in this content, as that togetherness, in various orders, which content-differences display. Consciousness and content are indivisible aspects of the infinite harmony.

The genesis of Nature.

Nature is born with the *Appulse to Change*; with that all-important initiation of real time-succession which we shall discuss later. A germinal World-System detaches itself, or buds off, from the infinite imaginal matrix: a System condemned by its origin to finitude and imperfection, and which generates evil inevitably as its evolution proceeds. *How* this detachment of the cell within the mother-stuff takes place we have yet to trace; for the moment we are treating the event as accomplished. What, then, of Nature? Let us consider it for the moment without importing the complication of finite sentients. It is not so much an "Odyssey" (in Schelling's sense) of the C.I. It is rather an aspect of a poem, into which the C.I. does not empty itself, since the C.I. is beyond the level of growth and losses, is undiminished, so to speak, by its overflow. Nature's substance or body is literally stuff "such as dreams are made of"; the imaginal content already mentioned, which changes into ever new forms during the time-process. In its *budding-off* a germinal World-System becomes, in Hegelian language, in a sense "other than" and "outside" its ground; stands out isolatedly like a blot on the radiance of eternity. The descent of this nascent world into the storms of conflicting multiplicity, the unrest of change, is the genuine

The Metaphysical "Fall."

Metaphysical Fall; the price of a new creative episode. "Universe" seems almost to have passed into "Multiverse." During the descent "outsideness" or "externality" becomes self-externality as well. One part of Nature becomes more or less *exclusive* of another, though loss of continuity can never, it is true, be quite complete. It is a misconception of this self-externality which lends such support to the mechanistic hypotheses of reality.

Thus Nature is an aspect of a *creative* thought or content-whole within the C.I.; a sub-whole which develops more or less independently of the content of the *conservative* background over against which it appears. If there be, in truth, innumerable Natures, they are independent, not only of this content-background, but also of one another. It is necessary to say "aspect," since sharp separation of the content-side of a Nature from the "scious" and "conscious" sentient lives allied with it will not be found to bring satisfaction.

The direction of the Nature-process.

The direction of the process? Towards recovery of the harmonious state whence it arose. Even a romance of the C.I. comes to a close. But this return of creation into the eternal present, which is not "timeless" but endures without change, will concern us later.

Nature and the finite sentients allied with it.

Within Nature arise finite sentients of all grades, sub- and doubtless superhuman, which are all "spirits" in this commanding sense, that they aware themselves directly and immediately in self-

feeling, know their being from the inside.[1] The sentient is a reality which is *present to itself*. Even a fish is such a reality in so far as it awares, however simply, a food-particle. But the particle is said to have no conscious reality of its own; it is a reality which is awared only because it is *present to another*. On the other hand, the "unconscious" particle is more than an appearance to the fish-sentient. It points, also, to a content of Nature which exists whether the fish-sentient is influenced by it or not. And, like all other aspects of the perceived order, it masks communities of minor sentients which are more than *mere* contents which sentients aware. Shall we urge that there is no element of content whatever in Nature which is not present in some manner to sentients of different grades? Our account of the evolution of Nature will include this view.

What is the meaning for us of such terms as "evolutionary" and "Evolution"

§ 8. What is meant by the term "evolutionary," as applied to change "inorganic," "organic," etc.? It is to be feared that many writers have used it vaguely as a label for any hypothesis about Nature which derives, by a gradual process preferably mechanistic, the higher and richer *out of lower and poorer "elementary" agencies*. The same straining after explanation by the lower and poorer characterises much of popular "evolutionary" speculation as to the origins of intellectual and moral faculty. This desperate enterprise is useful to us here. It has the value which attaches so often to error. It enables us, however faulty our

[1] The reference is not, of course, to *reflective* self-consciousness, which is a relatively late development and probably unknown below the human level.

own hypothesis may prove, to point out unhesitatingly what Evolution is not.

What Evolution is not.

Evolution as based on the movements of mass-particles; on transformations of a mythological calculator's entity called "Energy"; on a mechanically-conceived "Ether" and "Energy" co-operating; or on other like conceptual figments, does not concern us. It has been disposed of already in another place.[1]

Agnostic evolutionism has been attempted; only surface-phenomena and generalisations about these being, by proclamation, in view. But agnostics, as we have seen, do not, and indeed cannot, confine themselves to surface-phenomena; they always invade metaphysics, without desiring overtly to do so.

The agnostic evolutionism of Spencer.

Spencer, who is a good representative of this class of thinker, regards Evolution as "an integration of matter and concomitant dissipation of motion; during which the matter passes from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity; and during which the retained motion undergoes a parallel transformation." This, indeed, is the definition found in *First Principles*. It has grave defects. There is (1) the fundamental trouble that the surface-phenomena are not kept *impartially* in view, the abstractions used to re-think them being of mechanistic type. And (2) these abstractions become increasingly difficult to use as the "synthetic philosophy" leaves physics for biology, and biology for psychology and sociology, etc.

[1] *Cf.* §§ 1, 2, 3, Chap. IV. Part II.

Thus "integrations of matter" and "dissipations of motion" are hardly illuminative as regards the *distinctive* phenomena of organic function and conscious individual life. What of the Formula of Evolution, for instance, in respect of the changes in my own history? Does not conscious process seem of consequence in this domain? Now in *First Principles* there is seemingly an attempt to anticipate this kind of criticism. It consists in adoption of the view that "no idea arises, save as the result of some physical force expended in producing it."[1] The intention is to dispose of conscious process as incidental to the transformations of Force,[2] a metaphysical adventure which requires daring. But even if conscious process can be dealt with in this way, is it not, as a phase in Force-transformation, itself a "Force"? And ought not its phenomena, being at least as real as the phenomena ascribed to physical "Force," to receive some sort of recognition in the Formula of Evolution?

Later Spencer came to regard conscious process and allied cerebral change, not as causally related phenomena, but as "subjective" and "objective" faces of the same occult reality. The Formula, withal, was not, to my knowledge, amended.

Agnosticism of this type is clearly working to explain the higher and richer by the "elementary," lower and poorer. It wishes to reshuffle a very few plain cards so as to be able to deal out all the other

The fundamental error.

[1] P. 217.

[2] Spencer uses the word "Force" very loosely. It stands now for an unknown x, now for what modern physicists mean by "Energy," as in the deductions from the persistence of "Force." Its precise relation to "Motion" remains obscure.

cards, including court cards, from its "wretched hand." But how can it succeed except by a conjurer's artifice? Its wholesale derivation of "heterogeneity" from "homogeneity," in the field of "Matter," "Motion," "Time," and "Space," is of a piece with its treatment of the standing of conscious life. The fallacy of simplicity has found yet another victim.

One readily understands why men "explain" complex phenomena by saying that they are *something else*; not what they announce themselves to be, but two or three *simple and familiar* kinds of phenomena variously related. They are bribed by the sense of power, the apparent intellectual mastery enjoyed. We are to urge, however, in respect of Nature, (1) that its contents never were even approximately "homogeneous" at any stage, and (2) that such "heterogeneity" as Spencer derives from "homogeneity" belongs, in strict truth, to the domain of creation. The clue is to be found in our views about causation already stated. Causation, conservative and creative alike, is imaginal; and imagination does not build new edifices simply by rearranging old bricks.

The "endless redistributing of Matter and Motion," which constitutes the world-order of Spencer, constructs nothing which it is not bound to destroy later. There is no provision for a conservation of values. Note that the Power manifested in this futile changing is strictly determined. It is and behaves only as an iron necessity decrees. Contrast it with the spiritual IDEA, the spontaneity of which shows in creation, and which holds all

content plastic to the *final* profit, perhaps, of conscious life.

What Evolution, regarded as a whole, ought to mean.

Evolution, we may be sure, is not a gradual Becoming of definite, coherent, heterogeneous forms of "matter" out of indefinite, etc., ones. We cannot simplify reality in this niggardly one-sided manner, if we want truth. Nor, again, to turn to the opposite extreme of thought, is Evolution a making "explicit" or "actual" of a system "implicit" or "potential," as some idealists will have it, in a static spiritual Absolute. These terms "implicit" and "potential" and the blessed word Mesopotamia have much in common. Fundamentally, whatever subsidiary features it may display, Evolution is a creative romance within a Power of which the best representation is furnished by our own imagining —conservative (or reproductive) and creative (constructive or productive). It is a romance at once splendid and infernal, an epic uncensored, to its artistic gain, by the narrow moral conventions of mankind. Scientific generalisations about it resemble a bookworm's notes about *Othello*; they deal abstractly with certain features of the play, but they miss the concrete movement of the whole. And they leave us, of course, utterly in the dark as to the productive activity which decreed that the whole should be.

CHAPTER II

NATURE (OR THE NATURES) BEGAN

Nature began.

§ 1. In this account of the evolution of Nature we are supposing, of course, that Nature began. We believe that there is a real time-succession, and that this succession had a first stage; that it presupposes what will be dealt with later under the name of the *Initial Situation*. We believe, further, though the consideration is not yet fully relevant, that it will close in a "divine event": the travail of creation having served its turn. The "specious" present, alone possible in the welter of change, will pass away. The struggles of Becoming will issue in the perfected result in which there remains no scope for change.

A finite time-succession is an aspect of a finite World-System.

To suppose this is to say once more that finitude characterises our World-System in a time regard as in all other respects. Any ripple on the ocean of the infinite is finite, just because it is not the ocean itself. And there may be innumerable ripples or world-processes to be taken into account. *No one World-System could comprise the variety which creation requires.* Not all kinds of phenomena are "compossible," as Leibnitz put it. "The sum of all that is compossible and therefore exists we call the world," which is condemned in this way to

finitude *in omnibus generibus*. Now we shall have reason to hold that time-succession (like space) is an imaginal invention which furthers "compossibility," and hence that variety of phenomena which is so remarkable in the case of our particular World-System. Time-succession is a finite aspect of a finite World-System. It does not lure us into an "infinite regress." It presupposes a genuine Initial Situation, from which our particular World-System emerged. *Non est factus mundus in tempore, sed cum tempore*, if by "*tempus*" we agree to mean time-succession.

Are we to believe in Cosmic Nights and Days?

§ 2. The question now arises: If we accept the reality of innumerable World-Systems, how do these creative episodes belong to the C.I.? Some may urge that the contemplative (or conservative) and the creative aspects of the divine life take shape in *alternating* Cosmic Nights (non-creative) and Days (creative); in eras of merely conservative conscious activity and in eras in which world-processes occur as well, like the universal Pralayas and Manvantaras of Indian belief. And they may suggest that our experience lends some support to this notion of alternation. Nature itself might be cited as a witness. "Throughout all her regions she oscillates from tension to *vis viva*, from *vis viva* to tension," observes Tyndall;[1] and this oscillation is repeated unmistakably in the story of the nations and in our own individual lives. In recent biological writing it has been urged that "alternate periods

The case for alternating Nights (non-creative) and Days (creative).

[1] "On the Constitution of Nature." Spencer has discussed much the same thought in his *Rhythm of Motion*.

of stability and transformation" figure in the history of all animal and plant species, as de Vries and the mutationists contend. As on the small scale, so on the great. There may be like alternations from tension to *vis viva*, etc., on the cosmic scale. "Tension," as applied to the activity of the C.I., seems a poor symbol.[1] Still, even a Bergson has appealed to "de-tension" as generating the natural order and space. And if we are rid of this too distant symbolism, and interpret the alternations on the lines of imaginal conservation and creation, are we not within hail of the truth?

Why we are unconvinced.

But if this be a tolerable truth-claim, it is one which even Mill's Finite God, were He merely the ruler of our particular World-System, could not *verify* for us. There are points respecting which even a society of gods may be agnostic; and this seems one of them. And not being a god and being unable to guess to any profit, I prefer to state a personal inclination, rather than a conviction, thus. The alternations noted are of great significance in the regions where they are noticed, and, of course, specially satisfactory to a way of thinking such as ours. But they hardly convoy us to inferences about universal non-creative Nights and creative Days. There *endures* ever the genuine present of Eternal Day: the Day of the All-conscious IDEA or C.I. Creative episodes may be in the content of this IDEA or they may not. Its freedom is not limited by rhythms of alternation imposed by some dark fate beyond its pale. There can be no such fate beyond the Infinite. Let us then be

[1] It is symbolisation on the basis of "Energy" which is a calculators' entity and not a reality of cosmic standing.

content to dispense with suppositions about inevitable alternations of contemplation and creation. Let us simply hold that Ultimate Reality is this infinite superpersonal IDEA, and that creative episodes are present to it as expressions of its freedom. This will suffice for all the purposes of this essay, and will rescue us from coming to a decision on a matter too far-reaching, it may be, for the experience of gods. Let us note, in conclusion, that the concept of alternations and of simultaneously evolving World-Systems, not directly related to one another, raises an additional difficulty about time. Can these, perhaps, insulated World-Systems, present in some manner to the C.I. but not to one another, be described as constituents of a single time-stream at all ?

We return, then, to the riddle of how our particular World-System, of which an aspect is Nature, began. It is prudent to leave the genesis of the other possible Systems to be discussed by authorities better informed than ourselves. So problems connected with universal non-creative Nights and creative Days—if such there be—vanish from these pages and henceforth will trouble us no more.

"Energy"-symbolism and the time-limitations of our World-System.

§ 3. The time-limitations of our World-System have often been discussed by men of science in connection with " Energy " ; a device of *symbolisation* which ought not to be taken over uncritically and treated as if it were metaphysics, but which offers for all that valuable matter for retranslation into our sort of thought. The outlook of the " Energy " symbolists is as follows. All that happens in our World-System is incident in the

transmutations of "Energy" flowing down from its remote headwaters into the dead sea of uniform heat-"Energy." The stream does not flow unchecked, but stagnates in places as "potential Energies," eventually to continue in "kinetic forms" its running down to the level where transmutations cease. The symbolisation is patent. When we come to look for "Energy" itself, we cannot find it. It dodges us under its alleged qualitatively different "kinetic forms" or retreats into "potential" being; a seclusion in which it is treated by science as still somehow real and merely *hidden from view*! When we are said to utilise "Energy," what do we do? We move things; and on this other events happen. These happenings, again, are said to display "Energy"-equivalences; a certain amount of one sort of "Energy" being transformed into a certain amount of another sort, as in the case of the churning of water in which the constant relation between mechanical "Energy" expended and heat-"Energy" produced is expressed by Joule's law.[1] But these equivalences mark conservative relations between phenomena-transformations, not conservation of an entity, "Energy," which has never been observed, and which seems clearly an ingenious device invented to aid calculations.[2]

But, treating the symbolism warily, let us look at the world-transformations as many authorities interpret them in its light. The "go" of a World-System is said to depend on the "Energy"-trans-

[1] 772 foot-pounds being "expended" to raise the temperature of 1 lb. of water 1 degree Fahr.

[2] See Part II. Chap. IV., "Energy," pp. 313-20.

formations, and the sum of these changes possible has been called the "entropy" of the System. As the transformations proceed, then, there is a fatal descent to levels of lower transformability, and from these toward the waste-level of unavailable "Energy" of uniform heat. Now the first law of Thermodynamics asserts that the "Energy" thus degraded into uniformly diffused heat is still conserved; the second law warns us that, although conserved, it is "unavailable." "Capacity for work" is lacking, even in a World-System saturated with such "Energy." The critic who recalls that "Energy" has been venturesomely, but very widely, defined as "capacity for work," may smile. But the symbolism is unashamed. It retorts that "capacity for work" has been (not annihilated but) dissipated in the "kinetic Energies" of very small units, the unco-ordinated antics of which are so much futile motion. Could these motions be directed, *e.g.* by a hypothetical "molecular intelligence," the deadlock might cease. Of which later.

Significance of the degradation of "Energy."

The law of degradation has a special significance for us. It warns us of the time-limitations of our World-System. Bergson says of it, "Essentially it expresses the fact that all physical changes have a tendency to be degraded into heat, and that heat tends to be distributed among bodies in a uniform manner. In this less precise form it becomes independent of any convention; it is the most metaphysical of the laws of physics, since it points out without interposed symbols, without artificial devices of measurement, the direction in which the world is going. It tells us that changes that are visible and heterogeneous will be more and more

diluted into changes that are invisible and homogeneous, and that the instability to which we owe the richness and variety of the changes taking place in our solar system will gradually give way to the relative stability of elementary vibrations continually and perpetually repeated." [1] But Bergson, in this account of what the law tells us, is still dealing with symbols. The different kinds of "*heat*-Energy" discussed by science (kinetic Energy of molecular translation, "spin heat," "wobble-heat," and so forth) are all markedly symbolic devices. They are not variants on what we mean by "heat" when we bite hot potatoes, but are substitutive concepts by which physicists represent to themselves *as yet imperceptible* happenings in Nature. They are schemata of moving particles thought very abstractly; ideas impossibly adequate to what is going on. Were the actual happenings perceived, they would be like familiar happenings which are present to sense. And even thus they would mask *relations of sentients* whose *lives* cannot be cut down merely to "vibrations continually and perpetually repeated."

Symbols, symbols, everywhere.

In connection with these *lives*, we must recall the admission of men of science that the second law of Thermodynamics would not hold strictly, if a psychical factor could regulate the movements of the small units of a so-called uniform heat level. Let a distinguished physicist speak: "As has always been understood by the best exponents of the law, the existence of any sort of 'molecular intelligence' would vitiate the second law. For though, throughout, we have spoken of mean velo-

[1] *Creative Evolution*, English translation, pp. 256–7.

city, mean kinetic energy, etc., as the statistical averages applying to the whole immense swarm of molecules, averages which have perfectly definite values, the individual molecules in the same mass of matter depart from the average values widely" (Soddy). Such variations could be *used*; at any rate there is no theoretical objection. The point of capital interest to us is that, since Nature masks sentient communities, a psychical factor *is* forthcoming, however undeveloped we may suppose it to be. And, in fact, with the acceptance of the psychical character of Nature, we must prepare to abandon belief in all symbolism which requires the second law to be rigidly true. Meanwhile the value of the law for practical thinking subsists unimpaired.

Since Nature masks sentient communities, the second law of Thermodynamics cannot be unimpeachable symbolism.

The symbolism of "Energy-degradation" is a way of regarding a World-System as through a glass—very darkly. Its significance to us consists in its being a hint, from the side of science, that our World-System and its relatively closed sub-systems are of finite duration, having beginnings and ends. Worlds, it is suggested, have careers in which a certain fund of mutability can be spent and no more. They strike the mind as moving, slowly but fatally, toward a day of doom. They are, perhaps, all experiments, and there is a tide in their affairs, which may or may not lead on to fortune, but which has its inevitable turn.

Suggestions for deriving these funds of mutability *indefinitely* from prior sub-systems and Systems are not satisfactory. The ultimate origin of the "Energies" must be sought, as Bergson himself

Ultimate origin of the "Energy" or "Energies."

concludes, in an "*extra-spatial*" source.[1] Having no further use for the "Energy"-symbolism, we return to naked metaphysics to take account only of the activity of the Imaginal IDEA. There is assuredly "capacity for work" of a psychical or spiritual kind here; and it is no secret how we are going to read the symbolism which has been discussed. The representative-fiction of science, "Energy," stands for content-activities, conservative and creative, of the plastic IDEA; and alleged modes of "Energy" mask always modes of conscious and "scious" life. The implications of our treatment of consciousness and activity (Part II. Chap. I. §§ 2-17) are being drawn forth into the light.

How we are going to read "Energy". symbolism.

Though you can use a symbolism of the degradation of "Energy," you must not take it too seriously and degrade the World-System as well. This system does not begin with mere motions and mass-particles, and it does not end in "heat," *i.e.* movements distributed in a uniform way among such particles. Situations of this class belong to the Neverland of abstractions and representative fictions.

The uniformly distributed "heat" stage of elementary vibrations, spins, and wobbles might be regarded as a way of symbolising the senility of a System. The former very complex life-phenomena of the System have ceased, but the simple relations of *very humble sorts of sentients* (represented by the physicist as "particles") still occur. The movements *expressing these relations* are "un-co-ordinated"—that is to say, they lack overruling

[1] *Creative Evolution*, English translation, p. 258.

sentient direction and happen to no combined end; are "unavailable" for "work," *i.e.* for subserving content-transformations above their own level.

But we are lingering too long in the shadow world of "Energy"—let us get beyond symbolical groping and endeavour to glimpse something of the Creative Appulse or overflowing of the infinitude of the divine IDEA.

CHAPTER III

THE GROUND OF EVOLUTION

§ 1. In the Hegelian system Reason is at once the "Substance" and the "infinite Energy" of the Universe "since Reason is not so powerless as to be incapable of producing anything but a mere ideal, a mere intention." "While it is exclusively its own basis of existence, and absolute final aim, it is also the energising power realising this aim; developing it not only in the phenomena of the Natural, but also of the Spiritual Universe—the History of the World. That this 'Idea' or 'Reason' is the *True*, the *Eternal*, the absolutely *powerful* essence; that it reveals itself in the World, and that in that World nothing else is revealed but this and its honour and glory"[1]—this is the main hypothesis of the Hegelian philosophy. This famous hypothesis is that of the Rational IDEA. We have substituted for it experimentally that of the Imaginal IDEA or C.I. For we have been unable to derive concrete flowing Nature and the variety of History from Reason; have been unable to credit Reason with the requisite "power," or to allow that an abstraction, reached by the ignoring of the particularity of things and of all affective life, can possess any "aim," immanent or other, which it

Restatement in brief of the case against Reason or the *Rational* IDEA.

[1] Hegel's *Philosophy of History*, Sibree's translation, p. 10.

"realises." Without doubt the Hegelian Reason, despite these defects, is preferable to the pluralism with which some *too abstract* modern thinkers, enamoured, like Hegel, with logic, seek to interpret the Universe. But it is insufficient to furnish that inclusive grasp of reality which we desiderate—leaves too much *uncomprehended, i.e.* "not grasped together," in its world-view. We, on the contrary, seem to have found in the C.I. all that variety of content, "power," purposiveness, and even affective being which is requisite for the explaining of Evolution, regarded not in a ridiculously shallow mechanistic way, but as the rich concrete flowing that *experience* shows it to be. The protean imaginal activity at once precipitates Nature and takes shape in the known forms of finite conscious experience, including those labelled collectively as "Reason." "Reason," as it appears in us, is derivable from the creative activity of the Imaginal IDEA. But he would be a bold man who, identifying Ultimate Reality with "Reason," tried to derive even *human* creative imagining from this arid ground.

Reason is a form of the protean Imaginal IDEA.

It is the activity of the Imaginal IDEA which is symbolised unwittingly by modern exponents of the transformations of "Energy." The transformations of the IDEA in Nature lend themselves, as we saw, in great measure to this symbolism. But the symbolism, applied to the sphere of conscious life, works at a disadvantage, since there the complex contents, *obvious and directly awared*, contrast too sharply with the meagre symbolising formulae employed. And it breaks down hopelessly in multitudes of cases, *e.g.* over explanations of the "transformations" implied by falling in love

Which IDEA has been symbolised unwittingly in the theories about "Energy."

or inventing a new theory of the infinite. Thus, while noting that we tolerate the symbolism up to a point, we note also that we have to dispense with it when its inadequacy, in face of the experienced facts, becomes too insistent to be overlooked. We are not always harnessed to practice, but are sometimes on the trail of naked truth.

The C.I. as ground of Evolution.

§ 2. Now we are about to consider the C.I. or Imaginal IDEA as the ground of Evolution. And, by agreement, only as ground of the Becoming of our own World-System, *i.e.* the System to which belong all the stars, star-clusters, spiral nebulae, gaseous nebulae, sun, planets, etc. etc., catalogued by astronomy, and the allied history of us animal and human sentients. It goes almost without saying that this World-System may include numberless other undiscovered places of evolution and sorts of sentients—" unseen sub-systems " connected with the physical order and as yet undetected beings masked by the physical order itself. There is hardly any call to press such points on the sane reader. We have to allow that our World-System may be indefinitely greater and more complex than our crude sensible perceptions (which subserve, in the main, simply needs of our *present practical life*) suggest. Allowing for this fully, we have to ask how the vast changing complex came to be, and what are the drive and urge manifest in its Becoming.

We are agreed as to the ultimate source of this Becoming, which looms on us out of rolling mists almost too dense for vision. The source itself, the C.I., is indicated, under one aspect, in the Heraclcitan concept of the primitive Fire, from which

finite things emerge in strife, to return anon into the peace which evolution has marred. For this Fire suggests activity, and the C.I. is superpersonal, conscious activity which includes conservation and creation alike. *It is this conscious activity, ensouling content, which constitutes the "Energy," so-called, of the Universe*: the imaginal spontaneity which is manifest in any and every transformation of which we can think. And not only change, but static reality, attest it. To be is to be active. The background, over against which creation begins, is a divine *act* of conservative imagining; the "beatific vision," the ἐνέργεια ἀκινησίας, which is only rest in that the *content* awared is superior to change. Its stability is the mark, not of inactivity, but of perfection.

The "Energy," so-called, of the Universe.

We have to suppose a basic reality—the true ocean of the infinite—which supports and takes form in all things and is not itself to be explained further. And we suppose a superlogical, spiritual activity, not bare, but one with the content-variety which it co-awares. The C.I., regarded as empty of creative episodes, is not a *dead* reality, a many-hued precipitate which merely *is*. It and the included variety express in their self-maintenance or conservation an act. This kind of conservative act is not unknown, in a distant way, to human experience (despite our immersion in a stream of change), and will concern us in that connection anon.[1] Meanwhile we are forced to take account

The C.I. and the conservative activity of rest.

[1] It is overlooked frequently that a large portion of human activity concerns, not the *alteration*, but the *maintenance* of a given situation. The artist seeks to "dwell on" the Turner, the poet holds fast to the landscape, the lover seeks to lengthen

of this conservative activity, at any rate, as hypothesis. There is no getting change, time-succession, space, causation, etc., out of a static unity-in-variety which is inert or dead. The C.I. would, in this case, be devoid of a native "principle of movement," and incapable of passing into novel forms, *i.e.* into creation, at all. Since it does so pass, we assume unhesitatingly the "principle," and we shall find the latter verified perpetually, and ever more clearly, as we proceed. We shall detect, indeed, in the principle of imaginal activity or spontaneity (whether applied to the problem of the original Creative Appulse or to such very contrasted topics as inorganic causation, organic variation, human free will, social progress, and so forth), the secret dynamic which Hegel's dialectical method overlooked, *but which nevertheless provided for that method the situations which Hegel cited mistakenly in its support.* I am aware that this is an enormous claim, but am satisfied that it can be made good, as soon as the said situations are reviewed in the new light.[1] To substantiate the claim is just to show that the history of creation is one long illustration of the truth of the hypothesis. There is no other way. Intuitions,[2] unless treated as hypotheses, are worthless to philosophy, and, treated as hypo-

The "principle of movement."

the lingering kiss, the mathematician tries to keep the same problem before his mind. And in free striving again, the essential (once that the new imaginal creation has come into being and has been accepted as the best "alternative") is the holding of the "idea," which I will to prevail, in the focus of consciousness; an essentially conservative act.

[1] *Cf.* at this stage our criticisms of the Hegelian dialectic—a "universal power," not a mere philosopher's method of thinking—in Part I. Chap. IV. §§ 3, 12, 13, 14, 15.

[2] Introduction, § 5.

theses, they require us to look straight at realities, to which they are said to apply, or hold our peace.

"Considered apart from creative episodes."

Considered apart from creative episodes (which may or may not alternate with non-creative durations) the C.I. is, in point of *content*, a static reality, the accomplished eternal perfection, which is not, however, timeless, but endures.[1] Its *con*sciousness, the continuum *of* this content, is the side of its identity; is the active grasp for which the differences of the content are *together*, not a "Multiverse" but aspects of a Universe. Here we detect the fundamental standing of *con*sciousness, or rather (as we ought, strictly speaking, to say), of *con*scious*ing* or *co*-awar*ing*; we are considering no mere "relation," but the ground of relations; no "addition" to a given "compresence" of somehow independent things, but the grasp-activity which that compresence presupposes.

[1] I am not at all clear as to what is meant by the "timeless" reality of anything save the consciousness side of the C.I. abstractly considered. Some have urged that "relations" are timeless, but relations imply terms, and should these terms cease to *endure*, the relations would seem to cease inevitably as well. Consider the relation of resemblance between two shades of red. It vanishes with the vanishing of the reds from the Universe. Consider the relation of "resemblance" in general. If instances of resembling terms (or of relations between terms, or of quantities, which also imply terms) cannot be brought to mind, are the words used any better than a noise? World-relations, one may aver, exist by grace of the *con*sciousness for which their terms are together. It has been argued, by the way, that a term can be related *to itself*, but the contention barely concerns us here. For (*a*) a vanishing term of this kind would carry its internal relation to perdition with itself, and (*b*) a term, said to be related in this way, points, in fact, to sub-terms or differences between which the relation holds. "John Smith," *e.g.*, is an identity of differences, not a bare identity related to itself.

*Con*sciousness is a true universal, identical in all the instances which are said to share it. You cannot suppose that *awaring* is radically different in the cases of mouse, man, or superhuman from what it is in the C.I. : the ocean of the infinite itself. But, of course, the *contents* awared furnish contrasts indeed.

Why there cannot be an "evolution" of consciousness.

Writers often treat loosely of "differing consciousness," of "consciousness" that may be "dormant," and very frequently of the "evolution of consciousness." The aspects of consciousness and content are confused. In virtue of this muddle, the "evolution of consciousness" is a favourite theme of young philosophers : I find it figuring in my own earlier works. There is, and there can be, no such evolution, and for the following most excellent reason. Evolution takes place as a romance *within* the C.I., whose continuity *is no other than consciousness itself*! The finite centre of consciousness, allied with *content* in the evolutionary process, is just this same continuity that is grasping a restricted field. Let us make use of metaphor. The cloud-masses have not evolved that shaft of sunlight which I see in the distance. There is the sun which is presupposed by the very origin of the cloud-masses, and which is now merely showing through them at a particular spot.

"Considered as including creative episode."

Considered as including creative episode, the C.I. includes along with it real change or time-succession. Now in my "specious present" I can be aware of *successive* phases of a revolving wheel or of a melody, which are, nevertheless, given simultaneously in some manner as well. And (ignoring

the "law of contradiction," which is merely irrelevant to *this* discussion),[1] I can urge accordingly that succession and simultaneity are not genuine exclusives; experience, to all seeming, validating my view. But there is no profit in endeavouring to know precisely *how* the C.I. includes finite time-succession, when present, in its infinite grasp. We humans are at a low level of conscious life, and must agree to accept the truth that, in some manner or other, it does comprise the finite system, and that without bringing its time-character as experienced by us utterly to nought. In the process of the suns we may come to know more.

The C.I. and the fundamental form of time.

§ 3. In the absence of that *making* of reality which constitutes a creative episode, the C.I., as we have urged repeatedly, is conscious activity whose content is harmonious and perfect, *i.e.* so "completely *made*" that no changes *imaginable* could better it. Were such changes imaginable, they would also inevitably occur. At one with this perfect activity of rest is cosmic emotion utterly beyond our power to describe, but symbolisable at need, perhaps, by rare and fleeting moments of our higher affective life.[2]

The C.I. endures. And enduring thus it awares a harmonious many or variety; the plural contents, without reciprocal externality, which fill it. What is this manner of compresence of the many to the universal consciousness? The many are, by

[1] *Cf.* Part II. Chap. III. § 8.

[2] *Cf.* Part II. Chap. II. § 23. The workaday human emotions, assigned to "God" by the popular religions, are not worth discussion in the present regard.

supposition, *together* in the C.I.; what, then, is the form in which they are awared? In a time regard, to limit our adventure strictly, they are *simultaneous* aspects of a changeless whole that endures. This simultaneity is the manner of compresence or togetherness[1] of different content-aspects to the C.I. A fundamental time-relation is seen to imply both the identity of the consciousness and the *differences* of the contents which show within it. A clue to the riddle of relations in general is offered us at the same time.[2]

The simultaneous points of difference and space.

There are no spatially related differences within the harmonious content. For space, as we perceive it, implies coexistent positions: a related many which are more or less exclusive or opposed, and which, unable to meet without conflict, exist *alongside of* one another. Space is the content-variety in a novel form or manner of existence, in which the differences have broken away from the restful harmony of interpenetration and from one another. It is a region of marked *externality*, as a Hegelian, of "detension," as a Bergsonian would say. On the other hand, we must not forget that the original harmony comprises the many contents, not fused into a total which abolishes their particular characters, but as distinct, though subordinated, elements in what the C.I. awares as a *totum simul*. These many simultaneous points of difference, which exist *along with*, though not *outside*, one another, furnish the possibility of space. We shall be able to trace later the conditions under which this space-creation comes to pass. It is a genuine creation, which an

[1] Cf. *Individual and Reality*, p. 276.

[2] On "relations," *cf.* Part II. Chap. IV. § 6.

account of the universal "principle of movement" is bound to include.

Such is the basic time-"relation" on which, in the case of a nascent World-System, succession, coexistence, and the causal dynamic are to supervene. "Relations" and "terms" would be innumerable for him who could explore the ocean of the infinite. They are at best, however, names for abstractly regarded aspects of a concrete total of immediately awared content, not for "entities," which exist somehow independently of the total and of one another, as a student of neo-realistic pluralism might contend. And in view of our present predominant interest, to wit, the metaphysics of the creation of a subordinate World-System, we are happily able to leave this infinitude of "relations" to analysts better equipped than we can pretend to be, and proceed forthwith to suggest how the Nature of our own particular World-System emerged from the harmonious duration to fall into imperfection, conflict, and change.

A Germinal World-System

The Initial Situation.

§ 4. A germinal World-System—the Initial Situation from which the philosophers' "Nature and History" are to be evolved—exists as a thought within the content of the C.I. Nothing happens within this thought: there is the enduring of a complex idea, the harmoniously penetrating aspects of which suffer no change. The idea comprises a "many"—otherwise it would be an empty blank identity devoid of character—but it does so without showing an inner conflict or unrest. It repeats, in

short, on the finite scale, the activity of rest characteristic of the C.I. in which it lies. How does it pass from this changeless or conservative state into the "corruption" of time-succession? To retrace the process is to provide the opening portion of the metaphysics of Evolution required.

But let us first make an attempt to state more precisely the general character of this germinal World-System; the Initial Situation so far as we seem able to comprehend it. This can be done conveniently under the following heads:—

I. The Initial Situation or Germinal World-System is not "Homogeneous," *i.e.* alike all through in respect of its Contents

Evolution does not presuppose the "homogeneous," as Spencer and others suggest.

We have urged already that it is no blank identity, but has a character of its own. It is necessary, however, to insist strenuously on this feature. Large numbers of evolutionists, so-called, aim at whittling down complexity to a minimum, as we saw in the first chapter of this part. The "irreducible" minimum, with which they construct our System, seems to swindle us out of the rich knowledge with which unsophisticated experience is big. It resembles the few dry fibres of a pressed leaf which we compare with a splendid living tree whence it came. Abstract thinkers, like Spencer, materialists, "Energy"-theorists, and the like, oversimplify thus on the great scale.

One manner of whittling down reality proceeds thus. It is asked — what are the fewest general *laws* from which we can "deduce" the remaining

"derivative" laws of Nature? And the questioner, who works with a few simple laws, may cherish the hope that some one, more acute than himself, will discover a comprehensive law into which even these few laws can be resolved. It seems probable that Spencer, with his thinly-veiled mechanistic bias, was feeling his way toward resolving all subordinate laws into cases of a law of "Force"; the obstacle which wrecked his ambition being that, on his own admission, he knew nothing of "Force" itself. There have been other writers who desired to "reduce" all uniformities whatever to cases of the law of Impact. We look and we pass on.

Whittling down reality to a few "simple" laws or a "law."

The search for a single all-embracing law is futile, because such a law would not provide those *combinations* from which originally it was sought to deduce the "derivative" laws. A plurality of combining primary laws has to be posited. But this concession leads to others. And very quickly we get to the saying of Mill that "the ultimate laws of Nature cannot possibly be less numerous than the distinguishable sensations or other feelings of our nature—those, I mean, which are distinguishable from one another in quality, and not merely in quantity or degree."[1] Mill's attitude,

Why failure is inevitable.

[1] Poincaré, alluding to the conflicting tendencies of (1) "unification" by the interrelation of phenomena, and (2) diversity in the arising of new phenomena and the perceiving of overlooked detail in old, writes that "it may be that after unsuccessful attempts to bend Nature to *our ideal of unity in spite of herself*, we shall be submerged by the ever-rising flood of our new riches and compelled to renounce all idea of classification—to abandon our ideal and to reduce science to the mere recording of innumerable recipes."—*Science and Hypothesis*, English translation, p. 173. The italics are mine.

again, is that of psychological idealism. We, however, are idealists of another sort, and we proceed to press our advantage thus. If there are so very many "ultimate laws" within human experience, how many more are there in the World-System to which we sentients belong? For the System, be it remembered, lies within the Cosmic Imagining; fragments only of which are sampled by what human experience reveals. Clearly we have reached a formidable, indefinite plurality of "ultimate laws," and the attempt to simplify the world has broken down.

Laws seem indefinitely numerous.

Nevertheless, there is now talk of indefinitely many laws, and we may be thought, therefore, to have escaped from "heterogeneity" after a fashion. The laws seem, perhaps, to have shed their gross, sensible embodiments, and to offer us a relatively pure intellectual atmosphere in which to breathe. Vain thought! Laws, as we have urged already, are not supersensible entities, but express habits, and each of these habits, underlying our human generalisations, implies an indefinite multiplicity of agents which we philosophers, at any rate, dare not ignore. Thus the law of Gravity sounds simple enough. It says that every "particle" attracts every other "particle" with a "force" directly proportional to its "mass," and varying inversely as the square of its distance. But what lies behind the convenient symbols "particle," "force," "mass," and so forth? A cosmic situation antipodal to the ideals of simplicity and homogeneity. The behaviour of gravitating bodies, as sensibly perceived, expresses the behaviour of the indefinitely numerous minor sentients whose relations lie at the heart of Nature.

And any one law implies a very complex background.

The habits of these sentients are stable ; if, in some cases, they vary from time to time, the unstable exceptions are too few to affect noticeably the total result. The upshot is certain "uniformities" of surface-phenomena ; and these are the "facts" about which a general statement is made in the law.

Ultimate laws, in the sense of possible generalisations, are thus indefinitely numerous. Each of them, again, implies a background of very great complexity which our practical thinking may ignore, but cannot suppress. There is no encouragement in this quarter for the cult of "homogeneity."

Laws generalise conservative modes of psychical activity which may come and go. The background remains.

Finally, the habits which characterise the different sentient agents, major and minor, of our World-System, being only relatively stable, laws may come and go. Clearly a system, in which such habits can arise and cease, is more than these habits, and cannot possibly be understood solely by reference to them. We shall have something to say later about the genesis of causal laws, or rather of the habits, or *conservative modes of psychical activity*, which underlie them.

There is thus no hope of deriving Nature from a "law" or handful of "laws" which point to a primitive "homogeneity" which passes somehow and slowly into "heterogeneity." It is true that the Initial Situation cannot be so rich in variety as the creative stages by which it is followed. But it is, also, very rich before evolution begins. It is, indeed, an imaginal complex which abstract thinkers will always simplify in vain.

II. On "Primitive Agents" independent of Causation

The conception of a complex Initial Situation, which becomes more complex still, dovetails exactly with a theory of *creative* evolution. It implies, also, that the Initial Situation comprises aspects or "agents" that are not themselves causally explicable at all. Nothing is happening within the Idea of the World-System—nothing alters. These aspects or "agents," which are presupposed by causation but are not themselves at the outset immersed in causal change, are the genuine "co-existences independent of causation" toward which Mill moved in his *Logic*. "Derivative laws," he writes, "do not depend solely on the ultimate laws into which they are resolvable: they mostly depend on those ultimate laws and an ultimate fact, namely, the mode of coexistence of some of the component elements of the universe. The ultimate laws of causation might be the same as at present, and yet the derivative laws completely different, if the causes coexisted in different proportions, or with any difference in those of their relations by which the facts are influenced." [1] The "collocation" of the primitive "natural agents" requisite to causation cannot, he says, be reduced to any "law." And again: [2] "Why these particular natural agents existed originally and no others, or why they are commingled in such and such proportions, and distributed in such and such a manner throughout space, is a question we cannot answer. More than this: we can discover nothing regular in the dis-

Mill's "coexistences independent of causation."

[1] Book III. chap. xvi. § 2.

[2] *Ibid.*, chap. v. § 8. Italics mine.

tribution itself; we can reduce it to no uniformity, to no law. There are no means by which, from the distribution of these causes or agents in one part of space, we could conjecture whether a similar arrangement prevails in another. *The coexistence of Primæval Causes ranks to us among merely casual concurrences.*" He points out, however, that "even the most capricious combination of agencies will generate a regularity of some sort"—provided that the "laws" of their operations are uniform.

Are the aspects or "agents" "casually" related?

Mill's primitive natural "agents" *in space* are for us relatively evolved ones, very remote in fact from their source in the Initial Situation. But the point that causation presupposes "agents," for which its "laws" do not account, remains valid. If we trace the causal dynamic of this World-System toward its headsprings, we get back to "agents," present there independently of causation and in some way themselves originating the causal dynamic. Must we speak of such "agents" as "casually related" just because they are not together as the result of causal changes in a time-succession? That decision in favour of pure chance[1] is quite uncalled for. The "agents" belong to a World-Idea, the contents of which embody an immanent design. What is not clear at present is how the relative *independence* of these "agents" begins. Are they not, at the outset, aspects of content rather than "agents" existing over against one another? The question is a vital one and will receive its answer in full.

The Initial Situation comprises no causal laws,

[1] On chance, *cf.* Part II. Chap. V. p. 377.

The Initial Situation does not comprise causal laws—does it comprise "real" species or Kinds?

such as form the main interest of science. There are no changes within it, and, consequently, no *habits* or conservative ways of changing. Does it comprise "real" species or Kinds variously related? Well, there are theories about Kinds which we need hardly trouble to discuss seriously. They were constructed on the supposition that changeless universal ideas of the type of *abstract concepts* are somehow superior to their "exemplifications" in concrete experience. An alleged changeless concept of platinum "in general" has been treated, by a curious perversion, as somehow more real than the bits of platinum, with their innumerable attributes, which are sensibly known.

The Imaginals.

The World-Idea itself — the Initial Situation whence flow Nature and History—is not a concept or substitute-fact which stands, in some one's thinking, for a fact or facts other than itself. It is what Vesuvius or the Earth would be to me if my imagining powers were expanded sufficiently; in short, it is an imaginal reality more akin to perception than abstract thinking. And though it may comprise what are often called "universals" (of content), we must give these latter another name if we are to distinguish them sharply from the false concept-substances just noticed. We can term them conveniently *Imaginals*. Any ideal content which is shared or shareable by many instances is an Imaginal. It is called so because it might be present to the imagining of a superhuman power just as a row of apples can be present to mine. The Imaginal is not necessarily aloof from change; it is fixed *or* changeful as its "instances" serve to declare. Imaginals, like the *Universalia in rebus* of the Middle

Ages, are not purely transcendent realities, but are embodied, at any rate in part, in these " instances." It might be urged, perhaps, that an Imaginal, prior to its show in multiple instances, is "*ante res*," and that it is then only a particular sub-idea within the complex Idea of the World. But one must go warily here, for it may be that an immanent plurality or " maniness " is part and parcel of its original being.

The case of Colour.

Once more I cite the case of Colour. " Colour," a schoolman might have said, is not merely a concept which *we* use to mean any sensible colour of any hue or all such colours taken together, but also a *concept-substance*, an essence subsisting transcendently in a " noetic " realm, and yet somehow an essence in which known colours participate. Supersensible and changeless, this concept-substance seems a fantastic and otiose invention. But consider Colour now in a more modern way as (1) our workaday concept, and (2) as *Colour-content* as it appears in the World-System—in our perceptions and fancy and in the far larger regions beyond. No. (2) brings us to the Imaginal. Colours in the World-System form a subordinate system or order with a peculiar identity of its own. The many " instances " here certainly share a common character. They do not, however, " participate " in a colourless, changeless, " noetic " form (which in fact exists only for reflection); but are members of a system of varied and changeable colours, content in the consciousness of the C.I.

Imaginals, then, are among the " coexistences independent of causation " which an amended

version of Mill's primitive natural agents will include. Others will arise in the course of the creative evolutionary process itself. They will be of all sorts, some having a small sphere of influence and showing in instances isolated in space and time, others having a range extending throughout the entire World-System. Some will have very many instances, none of any noticeable significance ; others few instances, but those of commanding importance. Some, so far from being changeless, will run through inevitably mortal careers, *e.g.* such evolved " natural Kinds " as Mercury, Deinosaur, Oak, varying slowly or with sudden " mutations " the while. All alike illustrate the modes in which the Imaginal IDEA, *at once one and many*, works in the transformations of content.

III. " FORCES " AND " ENERGIES " OF THE INITIAL SITUATION

These resemble snakes in Ireland—there are none. Our previous discussions will have made this point clear. " Forces " are fictions ; " Energy " speculation is symbology. And we want not distant symbolism, but truth.

All " Energy," in all quarters, refers us to conscious or "scious" activity, conservative or creative. All content-changes, whatever they seem primarily *for us*, mask sentient or awaring life. Our progress will depend on this vital contention being true. The contention must be made good through its application or use.

IV. Immanent Design and the Initial Situation

The World-Idea expresses statically an immanent design, the *characters, measures, and relations* of its Imaginals being harmonious. And this original situation limits, though in no inelastic manner, the possibilities which are open to creative process. Qualitative characters need no further comment at present. With respect to measure (which recalls Mill's observations about the mysterious "proportions" in which the "coexistences independent of causation" concur) [1] we cannot suppose that *mere* chance prevails here. There is no qualitative content which has not its definite quantity, and this qualitative quantum is what Hegel has discussed *abstractly* in his logic as measure. "To the Greeks the *divinity of measure*, especially in respect of social morality, was represented by Nemesis. That conception is founded upon a general theory that all human things, riches, honour, and power, as well as joy and pain, have their definite measure, the transgression of which involves ruin and destruction." [2] There is so much of every sort of quality beyond which the world tolerates no expansion. We are now discussing the situation before the time-process began. But note that, in this Initial Situation, the "divinity of measure" is of vital moment, *a mark indeed of the immanent divine design.* It is essential to the static harmony. And it is to control very largely the future of the creative process, come what striking improvisations there may. There are bounds set to achievement in the case of any one world-romance: bounds set by its

The "divinity of measure."

[1] *Vide supra.*

[2] Wallace's *Logic of Hegel*, "Doctrine of Being," p. 172.

creation lasting only a finite time and bounds due to the limited content-conditions present at its birth. Our "principle of movement," as will be seen, is not a magician able to construct novelties out of a void. It improvises, like a Shakespeare among ourselves, on a basis of given conditions which impose genuine, though elastic, restrictions on creative power.

Measure in the time-process.

Turning to measure, as evident in the time-process, we find it very interestingly illustrated in the relative proportions of the *Kinds* of existents or Nature-contents called by the chemist "elements" (not to notice the measures in which such "elements" meet in their chemical relations). These proportions are of enormous significance—so also are the modes of distribution which characterise them. Two illustrations out of scores available will suffice. Both concern the distribution of the very small quantity of an evolved existent, radium. This Nature-content, which occupies an almost negligible extent of space, has, withal, indispensable functions. The radium in surface rocks and soils, and that estimated as being present on the same scale in the underlying crust to a depth of fifty miles, can make good, it seems, the wastage of the earth's heat by radiation (Strutt).[1] But a relatively trifling increase in the amounts of the unstable "elements" distributed throughout the earth might render the planet uninhabitable or even cause it to explode. The "divinity of measure" compels the respect even of the gods.

[1] Uranium and thorium, which conspire to the same result, are not allowed for in the calculation.

Consider again the part played by radium emanations in promoting the slow oxidation of the nitrogen of the air, a process of such importance for plant-life. How much radium suffices for the work? And what if it were not operative?

Study the evolutionary Nature-process carefully with these factors of proportion and distribution well before the mind, and you will not find it easy to dispense even provisionally with the hypothesis of a primeval immanent design. Chalmers, cited by Mill, urged effectively that "though design is present everywhere, the irresistible evidence of it is to be found not in the laws of Nature, but *in the collocations, i.e.* in the part of Nature in which it is impossible to trace any law" (uniformity). There is no design, let us add, outside the World-System itself in which it is expressed. It precedes "law" as the manner in which the aspects of the World-Idea compenetrate harmoniously. Mechanistic and agnostic hypotheses apart, many objections have been raised to design, directed, in a controversial interest, against some particular religion or based on frank disgust with the infernal and stupid side of the time-process. We are not concerned with the theologians and their antagonists. But we shall have to deal very seriously with the problem presented by the infernal and stupid side of life; the problem so vividly realised by Mill, Schopenhauer, and others, and dodged so cleverly by most university-philosophers. If Nature issued from a harmony, expressing immanent design, why, ask the sceptics, are events on this planet so "abominable," "irrational," "foul," "debasing," "hideous," etc., as in large part they are? We shall not shirk the

Chalmers on "collocations."

Objectors to recognition of design

answer. And in returning it satisfactorily we shall apply the imaginal hypothesis in a novel field.

Our earth-story perceived on the great scale would suggest design very strongly.

It is well sometimes to find out how reality on the great scale impresses us. Were we able to *perceive* at a glance the evolution of this planet from its cradle of fire down to times when it changed magically into the home of plants and animals, we should hesitate to contest the case for immanent design —unless, perhaps, to save a philosophical theory. And, after all, reality being psychical in character, what need is there to resist the pressure of the appearances and to contend that these have no import; mean nothing beyond the fact that they occur? This earth-romance, which we carve up wearily and drearily in our separate sciences, would appear to a witness of the long time-process as a radiant vision; a poem of great adventure such as a divine artist might enjoy. Imagine an experience for which our globe, thrilling to the radiation of the sun, pursues its wonderful voyaging, a live thing of rare beauty, at first glowing fiercely, like a fury untamed, through rolling vapours and the steam of the first rains; anon glorious with oceans, lands, glaciers, rivers and mountains, ever melting into new forms behind a blue veil shot with cloud; later again the place of birth of organic kinds, of plant and animal, and in due season astir with the migrations and adventures of man. Astronomy, geology, biology, sociology, and the rest—what are they but dry leaves useful to remind us of the tree of life, visible only in this total process? The dry bones of abstract thought quicken to truth and beauty when we expand our imagining thus, and, severe as must be discussion when occasion calls,

there are intuitions also which we are wise to court. Immersed in the eddies of detail we must lift ourselves momentarily above the flood and seek the impressions born of a larger view. Think well, since to perceive we must often pre-perceive, but look forth boldly.

Immanent purpose as Hegel conceived it.

A mind of the compass of Hegel's could not fail to detect immanent purpose. But has Hegel discussed that purpose quite truly? The IDEA or Spirit, he says, attains in the world the "consciousness of its freedom"; a freedom, however, which includes within itself necessity, of logical source. "This result it is at which the process of the World's History has been continually aiming, and to which the sacrifices that have ever and anon been laid on the vast altar of the earth through the long lapse of ages have been offered. This is the only aim that sees itself realised and fulfilled."[1] And it is fulfilled, the critic will urge, at a preposterous cost, the martyrdom of the sentients who arise and disappear in the time-process. Have we here the barbaric cult of the "All Highest" who sacrifices his soldiers by right? The individual, however, cannot be regarded thus lightly *if pessimism and the final social collapse which it implies are to be avoided.*[2] Nor is it clear why the IDEA, intent on knowing its "freedom," should produce and martyr individuals at all. A dialectical self-sundering and self-affirmation, which dispense with their sacrifices, seem preferable. Note that there is no account taken by Hegel of possible theatres of

[1] *Philosophy of History*, Sibree's translation, p. 20.

[2] The individual will concern us specially in the second volume of this series.

History outside that of this planet ; none of possible World-Systems, which may be innumerable, outside the one to which the earth belongs.

An alternative.

A Logical IDEA might be realised in this futile "freedom," but not so the Cosmic Imagination. In launching a world-process, it creates as a lark sings—as a divine artist, infinitely rich, not seeking but *using* freedom ; as a power overflowing spontaneously into World-Systems without end. And in this process of creation it is no Moloch hungry to devour victims and ministering servitors alike. There may be World-Systems which do not comprise insulated finite sentients at all. But in Systems, in which such sentients play their parts, the perfecting or "complete making" of the Systems *includes the "complete making" and conservation of the sentients as well.* We are to discuss, in the course of a later volume, why this must needs be so. For the present let us urge that creation and conservation are together in the domain of change, each, as it were, bearing the mark of the other, and that the persistence of an individual, who *endures* at the cost of *changing*, is an illustration of what obtains on the great scale throughout the entire World-System where it appears.

V. HAS EACH WORLD-SYSTEM ITS GOD AND GODS?

So far we have been occupied with design as embodied in the *content* of the Initial Situation, that of our particular World-System as it exists statically in the C.I. ere change begins. The plan is not like that of a sculptor who seeks to shape an alterable

imposed from the outside. The Initial Situation comprises its plan in the manner in which it comprises its contents. And this plan, again, does not forestall "potentially," as the phrase goes, all the stages of evolution; the System is a *germinal* one, and creative improvisation, on lines yet to be indicated, is to characterise it throughout all the storms of change.

God and the gods.

But does this System, which exists *for the C.I.* as a *content*-complex, exist also *for itself*, *i.e.* in any manner which can be called conscious? And since it implies, at any rate in the time-process, plural activities, in what way are these activities to be treated by us? These two questions recall significant observations made already (section III. "Forces and Energies," p. 444), and are, in fact, portions of one large question, the importance of which cannot be overrated. This question is to receive an answer which seems vital to an adequate idealistic interpretation of the world-process. Incidentally that answer will restore a belief of which the hypothesis of the Cosmic Imagination, as provisionally stated, may seem to have robbed us; the belief, held by men like John Stuart Mill and James, that, in some manner or other, an overruling *finite* god is allied with the World-System in which we live. Doubtless there is a creative evolution to be considered even in this regard; there will be reasons also for taking a subordinate polytheism seriously into account.[1] It is a question, after all, as to what

Polytheism.

[1] Professor M'Taggart has prepared even our staid universities to bear with this statement. "There is nothing, perhaps," he writes in his admirable *Some Dogmas of Religion* (p. 258), "which should prevent us from giving the name of god to each of several

sorts of superhumans the System may contain. A power, sufficiently wise and powerful, would be greeted as a god and worshipped as such by all those who make obeisance to the great. The deities, many of them most sinister figures, displayed to us in "sacred literature" are by description finite beings. Some, as we read, are called by courtesy infinite, but they *behave* as finite beings. And their alleged wisdom and power, rather than their morality, recommend them.

God is not a magnified man nor even an insulated person.

Philosophical interest, however, bears chiefly on the case for the belief in an overruling god—of this particular World-System. We cannot desire, and we could not expect, to be able to represent this power as a magnified man. Not merely because man makes us too reminiscent of lemurs and apes, but because a level of conscious life, altogether superior to narrow "human personality," is indicated. Insulated personality, one-sided and weak, is marred by defects incidental even to its best qualities. In passing on to consider the overruling conscious life of our World-System, we shall decline to conceive it as an insulated person standing unintelligibly over against Nature and the subordinate sentients, major and minor, which the System includes.

beings, simultaneously existing, or to one such being existing simultaneously with others, who equal him in wisdom and power, but not in goodness. It may not be impossible to revert to Polytheism, or to conceive god as striving against other persons who equal him in everything but goodness."

CHAPTER IV

THE CREATIVE APPULSE

Πόλεμος πάντων μὲν πατήρ
ἐστι πάντων δὲ βασιλεύς.
HERACLEITUS.

Genesis of the natural order.

§ 1. How does the Initial Situation change—how does it pass into the time-process, into Nature? We have here what the neo-platonists have called an "overflowing" of the divine fulness. Quite so. The C.I. is simply showing its character, that of a chalice foaming over into novelty. We are agreed about this. We are now curious as to *how* the novelty comes to pass.

Bergson's theory of "detension"

Bergson suggests that the natural order is due to a consciousness [1] ("for want of a better word") which "*detends*"; this inversion of its original tension "creates at once extension in space and the admirable order that mathematics finds there." This inversion is an interruption, a break, a "*diminution* of positive reality."

"Detension" can be understood as follows. By letting myself go experimentally I can alter the way in which I exist in "pure duration," when all that in me lies is mutually interpenetrative and

[1] Better "conscious experience," as *content* is implied.

continuous — the personality concentrated to a point—and allow the contents of consciousness to be scattered. In such cases "our past which, till then, was gathered together into the indivisible impulsion it communicated to us, is broken up into a thousand recollections made *external to one another*. They give up interpenetrating in the degree that they become fixed. Our personality thus descends in the direction of space." [1] So far *our* experiment. But cosmically, also, this is how space-hung reality comes to be. Matter "consists in this very movement pushed further," "physics is simply psychics inverted." [2] The mind feels at home with space "when matter suggests the more distinct idea of it. This space it already possessed as an implicit idea in its own possible *detension*, that is to say, of its own possible *extension*. The mind finds space in things, but would have got it without them if it had imagination strong enough to push the inversion of its own natural movement to the end." [3] "Matter" aids mind to run down its own self-made incline, but, the impulse once given, mind goes on further to conceive "pure space," which is only the "schema of the limit at which this movement would end. Once in possession of the form of space, mind uses it like a net with meshes that can be made and unmade at will, which, thrown over matter, divides it as the needs of our action demand. Thus the space of our geometry and the spatiality of things are mutually engendered by the reciprocal action and reaction of two terms which are essentially the same, but which move each in the direction inverse of the

[1] *Creative Evolution*, English translation, p. 212. Italics mine.
[2] *Ibid.*, p. 213. [3] *Ibid.*, p. 213.

other." [1] Science exaggerates the spatiality of matter; since nowhere is there *complete* reciprocal externality; matter extends itself without being absolutely extended in space. Cosmology is a reversed psychology; nebular matter is the effect of the inverse movement.[2] What seems positive reality to the physicist or geometrician is a weakening of the true positive which must be "defined in psychological terms." Bergson's recognition of the psychical character of the Universe is thus complete, whether his "inverse directions" commend themselves to our acceptance or not.

When the poet reading verses follows the composition "with a continuous movement which is, like the inspiration, an *undivided act*," he is in the "tension" phase. In the "detension" phase, which expresses a *deficiency of will*, he relaxes his attention and lazes half-dreaming. The poem passes from its simple wholeness into the broken details of extension, down even to a dance of separate letters. This illustration goes to show how *order and complexity* of detail issue from "negative direction of relaxation." And it makes clear what is meant by saying that they may belong to a realm of *diminished* reality.

A general criticism.

We do well to present this view before discussing our own. Such contrasts promote clear thinking. Criticism is suggested as follows :—

(1) The theory is based on human experience such as that of the poet above noted. But can we use the concept, thus derived, as Bergson desires? Must we attribute "detension" to the Cosmic

[1] Pp. 212–13. [2] P. 220.

Imagination, and suppose that through a *deficiency of its "will"* the Nature of a new World-System begins? Has not some important consideration been overlooked?

(2) The contents in the poet's experience were many, even when they were being noticed as a many-in-a-whole; and they still belong to the poet's experience and to one another now that they are noticed as many. Do such contents illustrate adequately that reciprocal externality which prevails in Nature? Are we not driven to think not of separately noticed *contents*, but of more or less independent *sentient agents* as presupposed by Nature? "Detension," as I experience it, gives me no direct grasp of these. (3) Bergson believes that reality is psychical in character. Is there, then, any sufficient reason for preserving the refined dualism which the theory of the "two directions" involves? Is there any basic difference, for instance, between the contents awared in my sentient life and those of the *minor agents or sentients* masked by sensible phenomena such as sticks and stones? The *habits* of these sentients are more dependable and predictable than mine; the conservative side of reality is well exemplified in their contents. But I too have very many stable habits. And I must not relegate the minor sentient to the sphere of "*inert* Matter" of "inverse direction," just because its *active* life is so frequently an obstacle in the direction of mine.

We can dispense with his subtle dualism by urging that the *contents* of a World-System all agree in being modes of conservative and creative imagining, and that gradations of awaring psychical life

characterise these contents. These content-activities are "inert" relatively to one another only in this sense, that one group of them can be an obstacle to another, as when lethargic Chinese resist the message of reformers, or a brain resists the keeping of my good resolutions, or a stone resists my boot. But such resistance is not a mark of "inertness," but of opposed action.

(4) Bergson leaves the position of "Energy" obscure: *e.g.* life is possible, he thinks, "wherever energy descends the incline indicated by Carnot's law, and where a cause of inverse direction can retard the descent." [1] In this passage he seems to accept "Energy" as a real existent on the side of "Matter"; dualism being thus emphasised. We need not repeat our criticisms of "Energy." Let us urge that, on the view that perceived Nature masks sentients in every quarter, it is not a question of originating, *but of controlling*, the manifestations of life. Sentient agents on low levels must be at once allowed for and overruled, if they are to subserve the lives of higher ones. And that is the kind of problem presented by human or animal conscious life as associated with a *body*.

(5) Bergson's "consciousness" at the origin of life is clearly not the awaring activity which we have agreed to understand by that name. It is "made manifest to itself *only where creation is possible*. It lies dormant when life is condemned to automatism; it awakens as soon as the possibility of a choice is restored." [2] A consciousness, which is dormant, carries us back to German "philo-

[1] *Creative Evolution*, English translation, p. 270. [2] P. 275.

sophies of the Unconscious." And it implies the belief, which seems opposed to clear human experience, that to be clearly conscious I must be always choosing between alternatives. Could I not be conscious throughout eternity if the only content possible was an intense pain or a single vivid colour with no alternative whatever in view ?

Our own experimental account of how Nature came to be.

§ 2. Enough has been said to introduce our experimental and inevitably inadequate account of how *our* World-System may have begun.[1]

I urged in my last work that, if "*psychical* activity" is ultimate, its character is to "*disturb* as well as to *conserve*." This is the attitude that reappears in this essay, in a form more adequate to reality, as the hypothesis of imaginal activity, creative and conservative.

The World-Idea before the Metaphysical Fall.

The C.I. *conserves* the static harmony of the World-Idea by activity with restful content. But though the World-Idea thus *conserved* is harmonious, it comprises a manifold—the differences, *e.g.*, of its Imaginals and of *their* immanent manifold. It is not a blank, featureless identity. For the C.I., indeed, it is a radiant glory of the perceptual type beautiful beyond any vision imaginable by ourselves. Nevertheless, shall we liken it, to compare the great with the small, to a wondrous poem which an exalted mortal could imagine and aware at a glance. The poem, which contains, let us suppose, numerous characters, is at the outset just content

[1] This account (which seemed to William James at any rate "most original and ingenious," but stands simply as experimental hypothesis) was first attempted in *Individual and Reality*, pp. 272 ff.

for the poet whose *con*sciousness is its *con*tinuity; the field in which it hangs together as a whole. Conceive now these characters (which answer to the content-differences in the World-Idea) coming to exist *for themselves*, to be SENTIENT in their own right, thus *detaching themselves* in a manner from the poet and the former unbroken texture of the poem; like the group of characters in *Hamlet* becoming suddenly conscious in detachment from their imaginer, Shakespeare, and his play. This conception may serve to introduce our account of creative change and the time-process. The "radiant vision" is to break up into that unrest and strife that mark the Metaphysical Fall. And the Fall, again, is the possibility of all those novel joys and miseries which fill the night of time. Finite sentients can come into existence only at a price. If you like theological language, you can call this Fall the great "original sin"—of the finite sentients. But more sanely you will recognise it as the manner in which this World-System, if it is to contain finite sentients, has to be launched. Perhaps there are other World-Systems which are not yet launched and which comprise no sentients, *i.e.* contents which are conscious *and not merely contents*. But it would seem that, if there are to be sentients, there must also be a Metaphysical Fall and with it that strife which Heracleitus termed the father of all things. This reflection will follow us into our discussion of pessimism. Let us now try to suggest more definitely how the initial stages of the Fall come to occur.

A helpful illustration.

When we were considering Hegel's metaphysics, we urged that the *notion* of Being is essentially

We are to find at work the real principle that "moves the world" which Hegel overlooked.

static. Hegel's device is to ensoul it with the principle of contradiction as "above all things that which moves the world." In this way he seems to get up steam within this notion, Being, which then moves forward like a cosmic road-roller, with Nothing, Becoming, determinate Being, etc. etc., marking its advance. But Being moves in seeming only. You cannot exploit a "pure" notion thus, ignoring the concrete differences which existents comprise. In the Hegelian logic these differences are nominally repudiated as "sensible" and beneath the dignity of profound thought. Looking closely, however, at Hegel's procedure, we find that they are glanced at furtively, as the illustrations used in explanatory passages show. It is impossible, indeed, to think about Being and Becoming in their absence.

Hegel's wish was to seize the thought-principle underlying all reality. And he found his prize, as he believed, in the dialectic of contradiction. He was of opinion also that many instances are available to show that the principle actually works. And, perhaps, *something like it*, sufficiently like it to furnish the seeming confirmations of it, does work; a "principle of movement" which is illustrated equally in the dynamic of "sub-atomic" changes, the variations of organic species, the march of social reforms and beyond.

The Birth of Change

The Grand Imaginal of "our" particular World-System.

§ 3. Let us refer henceforth to the World-Idea as the Grand Imaginal of "our" World-System, or, briefly, as *the* Imaginal. We are to suggest how this Imaginal may have passed into time-succes-

sion, space, and the beginnings of so-called inorganic evolution. I say so-called, because Nature, inorganic or organic, exhibits only *gradations of structural life*, and the restriction of the term organic to the kind of life recognised by the biologist cannot be justified by sound philosophy.

Of the story of inorganic evolution we can say *Non est factus mundus in tempore, sed cum tempore*, where "tempus" means time-succession or change. We are agreed that time may also wear the form of simultaneous duration without change: the form, indeed, which characterises the contents of the Cosmic Imagination as they exist apart from a creative episode. That simultaneity, expressing the presence of differences to *con*sciousness, is basic. It is time big with the possibility of space, but we are to note that the mutually exclusive *agents* implied by spatial reality proper are lacking. It remains, during a creative episode, the eternal present over against which the IMAGINAL is to fall into time-succession, the "corruption of Eternity" as Dr Schiller calls it. And the Fall takes place, it may be, thus.

The "corruption of Eternity."

The natural order is not due, as Bergson puts it, to a "detension" or "*deficiency* of will." It expresses a *quickening* of activity of the content-differences in the IMAGINAL, World-Idea, or germinal System which exists (along with perhaps innumerable other such Systems) in the C.I. "Detension" is rather a sequel.

The Creative Appulse.

The IMAGINAL is a stable harmony of *differents* —the differences of its many sub-Imaginals.[1] Con-

[1] *Vide supra*, pp. 393-8, 442-4.

ceive the conserving activity as just maintaining these *differents* without change. The differents belong to a content-whole, and, to this extent, to one another, but " their " relations are harmonious. They are constituent aspects of a total idea—not more or less insulated agents between which there obtains a causal dynamic of change. Time-succession, which implies changing contents, nay agents, is unborn.[1]

Spontaneous imaginal activity.

Now the activity which conserves or maintains is also the activity which can disturb or destroy this changeless state—the harmony of the IMAGINAL. The degree of this activity is not fixed. Its *spontaneous* heightening is the fundamental fact on which evolution ensues. This spontaneity, which is just imagination in its creative character, provides the Appulse to change.

Conceive the activity as heightened. It is awaring conscious activity. All the differents in the IMAGINAL are no longer mere contents, but conscious or " scious "[2] contents ; are no longer differences contributory to, and absorbed by, a total idea. They are raised to the level of *agents*, *i.e.* active psychical

[1] In Dr Schiller's " precosmic condition of the world-process " —he is experimenting with pluralistic monadology as we are with something else—the ultimate monads are at first in a " *timeless solitude*," and time-succession arises with their relation to a Divine Spirit or supreme monad who constrains them to co-operate so as to form " some sort of whole," the unsatisfactory cosmic system of our experience, which is still being bettered. Consult his *Riddles of the Sphinx.*

[2] This term is useful to express a very low level of awaring life in which the " specious present " is exceedingly brief, and

centres whose very "sciousing" or "sciousness" *loosens* them both from the IMAGINAL and from each other.[1] The Many immanent in the IMAGINAL, but subordinated before as mere contents in a total fact, now have their turn! They pass from mere differences into the *clear-cut diversity* of multiple agents, each of which by the act of being sentient or "scious" has become a *discrete* centre in the hitherto unbroken IMAGINAL. And this is not all.

The Imaginal and the minor sentients or agents.

The *different* contents present to the different sentient agents become very largely *contraries*; contents opposed and mutually inimical. This brings us back to the saying that contradiction "moves the world." Contradiction is the general idea of the contrary—of incompatibles, exclusives. But it is not this contrariety which "moves"; we have here rather the prompting which is followed by the innovation or "movement." And this innovation once more is the work of creative imagining *which responds to the discordant situations with fresh content*; the so-called *transformations* of the world-process. At once the true principle of movement, the imaginal principle, is revealed to us. Given a situation of inner discords, transformation is the resource which serves to reduce the discords, as much as is possible, to harmony. But the reduction, again, produces a new situation which becomes in its turn the seat of inner discords, which tend to increase, whereupon is created a fresh transforma-

Differents and contraries.

How far does contradiction "move the world"?

The "principle of movement."

in which experience of a "self" (contrasting with a not-self and implying a developed memory) cannot possibly obtain. We shall recur to this topic. (*Cf.* also p. 183.)

[1] Though their *contents* are still of one tissue with other contents in the IMAGINAL.

tion equally provisional. *The world-process is thus forced along the path of imaginal or creative evolution.* You can test this view superbly by considering the case of a social reform, *e.g.* socialism, in which the working of the principle, only tentatively ascribed to Nature, is seen in the daylight where all can gaze. Socialism is an experimental *imaginal solution* offered to cope with the discords which arise and slowly increase during the capitalist régime of production and distribution. But while the principle can be seen clearly at work throughout the stages of *progress*, individual and racial, it is also, as we maintain, illustrated in the flowing of the obscure processes which underlie the order of Nature. We are developing this contention now.

Note, by the way, how etymology, as so often, affords a clue, as if a prescient power has stored hints in language in preparation for the time when *we* shall be able to grasp them. A "solution," *e.g.* like socialism, is that in which the discords of the preceding situation are to be "dissolved"; not merely suspended without change. A solution is now recognised widely as a kind of chemical compound, and a compound is a case of transformation, not a mere rearrangement.

The Appulse regarded from another point of view.

The *differents* in the IMAGINAL exist originally in proportions expressed by the phrase the "divinity of measure." Qualities in the respect in which they occupy the IMAGINAL are quantities definitely greater, equal, or less. These qualities in definite quantity are harmonious elements of a whole. With the quickening of activity this harmony is lost. Let us grasp this point firmly.

When I am drifting in a boat up a river with the tide I am helping to lengthen the day (which is longer by two hundredths of a second now than it was a century ago), and am affecting the motions of the planets, sun and moon, and even those of the stars. The mingling or interpenetration of aspects of the natural order is evidenced unmistakably by such facts. A thing is not only where practical convenience locates it, but also where its influence is shown to work. Now this interpenetration characterised the differents in the IMAGINAL, *but without conflict.* The Fall, however, has begun. The *differents*, erst harmonious, are quickened or intensified as they become agents or sentients; and they overflow strongly into one another. Each interpenetrating content insists on and expands itself, but, since they are all equally in the IMAGINAL, *which is finite*, they tend to collide. Each content striving, as it were, to become a Universe by itself, would occupy the entire IMAGINAL, but in doing so it encroaches on others—some neutral, some furthering it, but very many also *opposing, or contrary to, it.* The unrest of the incompatibles has begun. Self-conservation—the conservative side of the IMAGINAL as manifest in the sentient content or agent—is in this plight; that the contents are to conserve their characters at the same metaphysical points at which incompatible or contrary contents are to conserve theirs. There is an impasse of discords; on which creation occurs. Self-conservation is secured at the price of mutual CHANGE: of *an imaginal novelty* or "solution" which provides harmony. A universal changing sets in and, as no final harmony is attained, persists. The term "persists," by the way, is noteworthy. We have seen, and we shall

see again, how the conservative and the creative sides of reality concur in the time-process. We see now that change is to persist during the romance of world-evolution, and hence that, to this extent, change itself has its conservative side.

The birth of time-succession.

This universal changing of contents *is* the birth of time-succession. The imaginal "principle of movement" is now at work. In creating the first content-transformations it has invented this mode of time.

*In*tensity which passes beyond its first seat.

Any content, in acquiring *in*tensity, tends also to overflow into content *beyond* itself, to show an outwardly directed activity. A toothache, as it becomes sharper, influences my whole conscious present; a rising emotion spreads itself into my gestures, physical action, and beyond. The emotions of sullen men stream forth at last into the French Revolution. Taine held that in the sphere of thinking every impression tends to grow into an illusion or hallucination, and each is kept from doing so *by collision with opposite ones*, and thus "something like sanity is preserved by an equilibrium or balance between many lunacies."[1] In the sequel of the primitive struggle, which we observe in Nature to-day, everything is seen to press on something else which limits it. Even the nations themselves continue the pressure one against another, often becoming incompatible at a certain point of space and time; an impasse of discords met all too frequently by a "solution" enforced by war. Is this painful world, then, a "balance between many

[1] Cited by Stanley Hall (*Adolescence*, vol. ii. p. 68), whose words I give.

lunacies" ? There is one hope that shines through the turmoil. The "divinity of measure," in the perfect form that characterised the initial harmony, has been superseded. But the immanent design is to provide for the birth of finite sentients and the unrest of a world-process; an unrest which is the condition of all progress. When the unrest has served its turn it will vanish, and the harvest will then, perhaps, reward those who have sown it in sorrow. Meanwhile—the wheels of Time must roll, even though unnumbered billions are cursing them as they crush. Does the charioteer drive to no profit ? And, if to no profit, why, in an imaginal Universe, at all ?

The universal unrest of opposing contents.

§ 4. Herbart did not allow that those "reals" or "simple beings," which correspond in his system to our primitive natural agents, could change genuinely. He was too respectful of the "law" of contradiction in virtue of which, not he alone, but the old Indian Vedantists and the modern Absolutists as well have denied that change can belong to real being. Hence he provided pluralistic "reals" with merely acts of self-conservation. The mine is too poor to admit of the extraction of Nature and the variety of sentient life.

Change and the causal dynamic.

Each minor sentient agent changes in a creative way just as does the IMAGINAL on the large scale. It alters and it keeps on altering, however slowly, saturated with its past as it goes. There remains the riddle as to why great numbers of these agents should change in "similar" relations in "similar" ways. This consideration of uniformity in changing completes our introduction to the causal dynamic.

Uniformities of sequence or causal laws.

The reply is that the minor agents, in so far as they are instances of the sub-Imaginals, whose reality they share, are the *same*, and, as such, behave in the same way. And they *keep on* behaving in this same way; they acquire HABITS; and these habits are often remarkably stable. There are those who will object to this word "habit." But remember (1) that we are discussing *sentient* agents, not symbolists' "sub-atoms" or "sub-electrons," and (2) that habit means, according to the definition of Herbert Spencer, no more than "a course of action characterised by constancy, as distinguished from courses of action that are inconstant," [1] and their objections disappear. Habit is just a stable form of purposive life. It is one of the forms in which conservation concurs with creation throughout the world-process, striving, as it were, to "dig itself in" against the storming of change.

Habits of Nature.

Causal laws of Nature are described by A. E. Taylor as "formulæ descriptive of the habitual behaviour of a complex system of sentient beings," or, shall we say, of the phenomena which mask this habitual behaviour? With the evolution of more and more *complex* sentient agents, differences will begin to arise even among sentients of a kind. And hence the belief in absolutely rigid laws, which imply that all these sentients behave in the same way, cannot be true. Again, these sentients of slightly different behaviours are all slowly altering their ways with the lapse of time. Hence even the practically accurate laws will tend to become obsolete, applying only to a past that has been transformed.

Rigid laws of causation cannot be true.

And laws become obsolete.

[1] Note to *The Study of Sociology.*

The genesis of causal laws, which *as habits* presuppose the first "lawless" content-changes, seems thus accounted for. Laws did not pre-exist to evolution mystically in the IMAGINAL, in which there were no *habits* of behaviour. The IMAGINAL was a harmony without happenings. Its unity was rich with immanent design or purpose. It was not lawless in the sense of being below law; it was a purposive whole above it. On the other hand, there are stages in the evolution of Nature-habits in which the laws attained mark disorder rather than order, and belong clearly to the degradation of the Fall. The "reign of law" does not guarantee that happenings, of an ideally desirable kind, are taking place.

Laws did not pre-exist to creation in the primeval Imaginal.

Discussing "disorder" Bergson observes that there is never an absence of order, but always an absence of one kind of order to the "profit of another" in which we are not interested.[1] The reply is that we consider happenings to be infected with "disorder" if they are such as to conflict with our ideals of wide purposive activity. Regarded in this light, disorder prevails at the outset of the creative process and persists even now on the planet which we inhabit. There is a passage from chaos to cosmos marked by the "bacchantic" riots of Nature and even ourselves. This grim interval is inevitable. It would endure indefinitely were it not that no minor system of causation is a closed one, in complete control of its own internal happenings. Any given area of the IMAGINAL is open more or less to the influence expressing the immanent purposive activity of the whole. There is thus a

Order and disorder.

[1] *Creative Evolution*, English translation, p. 234.

pressure in the direction of true order—that is to say, order which satisfies fully the ideal of a wide purpose that is being realised. But the pressure is not at first adequate, and why? Because the IMAGINAL as a whole is also in process of creative evolution; is not yet mature and able to harmonise its internal changes aright. To what result is this evolution tending? We shall deal with this point later.

sorder and ance-ppenings.

Meanwhile we must bear in mind that "chance-happenings" of the creative sorts occur among the minor agents, groups, and systems of agents, and are introducing endless discords.[1] The contents of the IMAGINAL have, to a great extent, fallen asunder and are running literally amok: imaginal creation getting awhile largely out of central control. This burgeoning of imagination into all sorts of forms, monstrous, hideous, and other, is inevitably a feature of the Metaphysical Fall. It is in great measure evil, and part of the price paid for the origination of finite sentient life. It compromises in no way the character of the Cosmic Imagination itself.

Causation, it is now clear, is not a relation of succession, such as Mill discussed, nor a Buddhistic process of Becoming of which no explanation can be offered. It implies at least two primitive agents or sentients which compenetrate with a creative result. But notice that, if the penetration brings no conflict, but a harmonious situation, there is no further *process* compelled. The static rest is reached once more; the rest that ultimately awaits the whole World-System in its "Divine Event." There is

[1] *Cf.* "Chance," Part II. Chap. V. p. 377.

nothing in the causal relation which forces us to suppose that a World-System is subject to changes without end. The causal dynamic is no master—it is only the manner in which imagination presses toward its goal, the slow making and perfecting of the world-romance which began and will have its end; an "end" at once the close of a time-process and the crown of a purpose fulfilled.

There is nothing in the causal dynamic which compels endless changing.

One of Mill's definitions of cause is, curiously enough, adaptable to our own uses. A cause is "the assemblage of phenomena which occurring some other phenomenon invariably *commences or has its origin*."[1] Divorce this statement from Mill's psychological idealism and the definition works. The word "*commences*" leaves room for the hypothesis which always finds conservative and creative imagining—now more of one, now more of the other—in a causal process. Respecting the "assemblage" we do not require to suppose that all the phenomena of the World-System go to constitute it. This is a widely current assumption previously rejected by us. Contents in a World-System are not penetrated by all other contents *on an equal footing*. And only what is actually present to the causal situation counts.

One of Mill's definitions of cause adapted to our uses.

An instance from race-penetration. The Greek civilisation pushes into the East: incompatibles meet and a harmonising creation results: a Græco-Eastern culture in which incompatibles, now at peace, are transformed. Notice that there is no dialectic here; the Greek does not "negate" itself into the Eastern culture, but both, existing

An illustrative instance of causation on the human level.

[1] *Logic*, Book III. chap. v. § 7.

in their own right, meet. And the result is the "commencing" creative fact. This "assemblage" of "phenomena," again, does not include sunspots or the white bears of the Arctic regions to any extent worth noticing! It includes the "phenomena" which enter clearly into the lives of the Greek and Eastern human beings involved.

Causal laws and the conservative side of reality.

The changing that accompanies the formation of Nature-habits or causal laws must be such as to allow the habits adequate scope. A, B, C do not, indeed, recur to be followed by D, but E, F, G, etc., *sufficiently like* A, B, C to be treated as the same, must happen or events like D will cease happening, and Nature will be a flood of *mere* novelty, a flux of instabilities in which no sentient of a high order could be evolved. The rates of changing of different agents must be such as to furnish relatively stable "collocations," of which we can say, with *practical* truth, that they recur. The working of a petrol engine is said to illustrate constant laws—the habits of assemblages of agents. Good. But there must be provision for such assemblages being possible again and again, if these habits or constant ways of acting are to endure at all. Once more we note the importance, even amid change, of the conservative side of reality; and we must refer it to the red strand of purpose which connects the evolving world with the harmony of the primeval IMAGINAL.

Chance once more.

Causation does not exclude chance-happenings; in a manner it must be said even to include them.[1] The *meeting* of the different members of an "assemblage" of "phenomena" is not fully accounted

[1] "Chance," Part II. Chap. V. p. 377.

for by causal laws. And in the actual world this meeting has to be brought about very largely by methods which altogether overlook mere particular things. Take the case of two starfish. Ova and spermatozoa are scattered to drift about in the sea. There is no causal prevision by which a particular spermatozoon meets a particular ovum. Consequently fertilisation is secured only by the spermatozoa being extremely numerous on the "chance," as we say, that one will hit upon its mate. This kind of organic "waste" is one of the means by which the unpredictability of the chance-happening is overruled.

What do we mean when we speak of "derivative" laws?

In the evolution of Nature the IMAGINAL, already rich, varied, and complex, becomes yet richer, more varied, and more complex. And the habits of Nature—the laws—will become more numerous as the kinds and relations of sentient agents multiply. Hence we can talk in the language of text-books of logic of the vast number of *derivative* laws or "uniformities both of coexistence and succession." But we must not allow this language to mislead us. The so-called "derivation" depends altogether on the creative process; the first Nature-habits do not contain the later as a conjurer's hat does his mysterious eggs. The later are among the novelties, the birth of which imaginal activity has decreed. Starting from its limiting IMAGINAL, this activity seems to revel in the variety into which the creative experiment flowers.

CHAPTER V

THE EVOLUTION OF NATURE

§ 1. To time-simultaneity has been added time-succession with the earliest causal uniformities. The birth of time-succession is accompanied by that of space, in which the livened *in*tensity of differents within the IMAGINAL becomes *ex*tensity properly so-called. Space, concrete space, is an *invention* by means of which differents, not harmonised by being altered, *i.e.* still maintaining contrary characters, are rendered, in Leibnitzian language, "compossible."

Space as an invention.

Time-succession and space are often regarded as mysterious frames, forms, or even entities, which could exist by themselves without being forms *of* anything. They are certainly not our inventions, and, again, they are not, as Kant thought, merely *a priori* forms of our experience and nothing more. They are real whether you and I enjoy experiences of them or not. But not as forms or entities which might conceivably survive the annihilation of all the rest of reality. They are primarily forms or manners in which different qualitative contents exist in the IMAGINAL, as we have agreed for the present to call the germinal Idea of *this* World-System. They might, perhaps, be termed part of

Time-succession and space are not what vulgar realism or Kantism suppose them to be.

the connective tissue in the body of God, if by God we mean the overruling conscious power of *this* particular World-System. But that assertion made just at present would carry us inconveniently far. Retain, however, in mind this last suggestion, viz. that the IMAGINAL may be, in sober truth, the body of God. Well, time-succession and space are real in this IMAGINAL, which, again, is a mere islet in the ocean of the Infinite, the all-embracing Cosmic Imagination itself.

The origin of concrete space.

§ 2. Space shows diversity—the different qualitative contents of the IMAGINAL—in a new *form*. It is an altered simultaneity; a form into which simultaneously existing and conflicting differents are forced. The differents in the IMAGINAL never overflow wholly into one another. In so far as they do overflow you have compenetration and creative change. But they have a standing also of their own. They modify one another, but they are also self-conserving, even amid change. This situation is expressed as their externality to one another—as the *coexistence* of differents having different positions. Note, however, that this outsideness or externality of one to another is never complete. All the differents belong to the content of the IMAGINAL and are related therein. They are related, indeed, as more or less independent agents that, as sentient, have acquired a novel reality *of their own*. They are members of a System which shows at once continuity and "looseness"; the "looseness" of which we made mention during the discussion about "Things" in Part II. They are agents, each of which has its centre of resistance to obliteration, and, also, its sphere of influence.

The conflict of these self-conserving agents presents an impasse. This is met by the invention or creation of space; a novel manner in which they are to exist *together*, a modified simultaneity, as we called it. The invention, ponder it well, *cannot possibly be attributed wholly to the minor agents themselves.* It is of cosmic scope, includes them, legislates for them. It implicates the imaginal activity of the whole, to which these agents belong; it shows, further, the principle of creation veritably at work. We found that the causal dynamic also compelled us to look, in last resort, toward this whole. This is a very important consideration, and serves to prepare us for what is to follow in its proper place.

Not due wholly to the minor natural agents themselves.

This concrete heterogeneous space of agents having different positions, and real in the fullest sense in which any mode of content of the IMAGINAL can be real, provides us with the objective fact answering to the symbolic concept of certain mathematicians (usually very abstract thinkers), familiar as "absolute space." But, let us repeat, that it is essentially a manner of existence of agents with definite qualitative contents and not an entity, which might be full or empty, with "points" fixed in eternal relations. There could be no "points" in it were its qualitative filling to disappear. It would not be perceptible at all. On the other hand, the spatial manner of existing is a novelty added to time-ordered data, and, as such, calls for the fullest examination on its own account. It is not to be conjured out of its "terms," which are sometimes said to be "related" so as to constitute it. It is a genuine "invention"; a triumph of Cosmic

"Absolute space."

Imagining. An abstract way of discussing it is needful owing to the infirmity of the human intellect, which cannot attend to all aspects of a reality at once. A god might be less handicapped, and might become aware of space's full character in a concrete imaginal intuition.

Space is a genuinely new addition to prior existence; a triumph of Cosmic Imagining.

Space conceived as a homogeneous reality distinct from "matter," in which "matter" can move, and changeless in that it has eternally fixed "points," belongs to the domain of the Command-Concept. It is unverifiable, being by hypothesis neither perceivable nor capable of acting on natural things so as to be inferred from results noticed in them. It belongs to the list of our many *human* inventions or constructions, and its further discussion does not fall within the limits of the present volume. It falls within the story of the thinking individual.

Concrete cosmic space is essentially the *co-existence* of heterogeneous agents; therewith arise not "dimensions," which are conventions, but indefinitely numerous *directions* or possibilities of motion, which allow the distances between these agents to be altered. This manner of coexistence is itself stable, the conservative side of a reality, which is different from itself at different points as qualities dictate.

Concrete space has a conservative and a creative side.

Motion

§ 3. After space—motion. Primitive motion is a new form of change altering the relative distances between the natural agents or minor sentients in the Imaginal. It presupposes time-succession and space. There is change of place in the Imaginal

The origin of motion.

since space or coexistence, while modifying the conflict of the minor sentients or agents, *brings no complete harmony.* These sentients remain *not wholly* external to one another; they are of one tissue, on their content side, with the IMAGINAL, and are still subject to the mutual penetrations or invasions expressing the continuity of this IMAGINAL. These penetrations prolong that unrest which is indispensable for the world-process. The perfectly stable or static state is always unattainable. The lives of the sentients are furthered and thwarted by the contents which are thrust upon them. And in the *act* of conserving themselves they move *toward* other furthering sentients and *away from* thwarting ones—there are born those first "attractions" and "repulsions" ("tractating" and "pellating," as certain cautious men of science would say) which have so often been misdescribed as "original forces."

Attraction and repulsion.

Each primitive agent is active in respect of a situation due to the others; there is no separable entity, call it "Energy," abracadabra, or what you will, which is "transferred" from these agents to those. The qualitative contents of these agents, in so far as they invade the contents of those, constitute (what, in Mill's language, we may call) the "*assemblage*" of phenomena, which being present, some new phenomenon "*commences.*" This commencing is an imaginal creation of novelty which is not "in" the "assemblage" as such at all. And the activity at work is that which sustains the being of the agents concerned. Looking at the problem thus, we can surmise what the symbology of the *conservation* of "Energy" has concealed. Sentient

primitive agent A, penetrating B and C within the continuity of the IMAGINAL, is "conserved." Having invaded them, it is within them (just as an invading German army crossing the French frontier is in France!). What occurs now within B and C can be expressed as the "transformation of Energy" of the books. It indicates, in truth, *a creative habit of Nature*, a "law" such as we discussed in the last chapter. Strictly speaking, A, B, and C will not meet twice unchanged. On the other hand, if D, which is like A, penetrates E and F, which are like B and C, there will be the "commencing" of a new phenomenon or effect like the last. And this "uniformity of causation" can be formulated in terms of "Energy," when the necessary quantitative standards of measurement (which are often highly conventional) are found.

Conservative psychical activity and the conservation of "Energy."

But quantity, after all, is the manner in which qualities, intense and extense, fill or occupy the IMAGINAL. And the *qualitative* transformation in a case of causation is the dominating fact, so far as the cosmic process is concerned. In the matter, then, of the conservation of "Energy" our attitude is this. The content-activity, conservative and creative, in the IMAGINAL is the essence of the process symbolised. In so far as A enters into B, it is "conserved" there: when I enter a house I am within it! But it is changed in so far as the invading quality is altered—this is the creative side of the business. And *the more* quality there is present to be changed, *the more* of the new "commencing" phenomenon will there be. This is the true conservative-creative process. And the "equivalences of Energy-causation" are seen thus to be

Conservation and the "divinity of measure."

conservative ways of *transformation* within the IMAGINAL; ways implying *balancings or mutual checkings* of qualities which are perpetually being raised or reduced to their *best working proportions* in their very conflict. To this extent there is a "divinity of measure" overruling the turmoil of the Nature-habits themselves.

Mathematicians translate cosmic motion into their peculiar language.

Cosmic motion, regarded from the abstract, merely mathematical point of view, has been transformed into something else. "Motion consists merely in the occupation of different places at different times, subject to continuity [of the mathematical kind]. . . . There is no transition from place to place, no consecutive moment or consecutive position, no such thing as velocity except in the sense of a real number which is the limit of a certain set of quotients." [1] This may lead to the conception—often imported into metaphysics—that "we live in an unchanging world," as the mathematician Weierstrass maintained. Weierstrass overlooked the fact that there are other phenomena to be interpreted besides aspects of the natural order, which he desired, for his own purposes, to translate into abstractions. There are very many changes, *e.g.* within my mental elaboration of this essay, which cannot possibly be reduced to changelessness. And these and like phenomena give the clue as to how I am to treat the phenomena of the larger regions beyond my pale.

Concrete motion.

For William James *concrete* motion as *perceived* is a continuous feeling "only decomposed into elements —successive portions successively occupied by the

[1] Bertrand Russell, *Principle of Mathematics*, p. 473.

moving body—when our education in discrimination is much advanced." This is to say that the abstract way in which many of us are apt to regard motion is a human invention, *i.e.* a novelty which exists only in that portion of the World-System which is the theatre of the evolution of thinking men.

We are not concerned here with this one of man's many inventions, but with *concrete* motion at the dawn of Nature such as a superhuman power, conscious at that date, might have felt it to be.[1] Our attitude in this matter is dictated by our general idealism. And our realism, again, is seen in the view that this motion, independent of ourselves, is a genuinely full-blooded fact, not the gaunt "something else" proffered by abstract thought.

Motion as it is in the Cosmic Imagining.

Motion expresses outwardly in space the inward unrest of the primitive natural agents. Had I enjoyed a perception of the dawn of Nature, I should have been aware of the same kinds of motion as I am aware of now when *picturing* billiard balls and planets moving, *dreaming* of revolving wheels or birds in flight, *fancying* loop-roads on mountains up which a motor-car winds, or *perceiving* a train crossing the landscape. In all these cases alike I confront concrete motions of "continuous feeling"; *and these are the first motions which exist in the Cosmic Imagining.* There is this difference,

[1] "Install yourself in phenomenal movement . . . and velocity, succession, dates, positions, and innumerable other things are given you in the bargain. But with only an abstract succession of dates and positions you can never patch up movement itself."—W. James, *A Pluralistic Universe*, pp. 261–2.

however, to be allowed for. When I picture a man piloting an aeroplane, I create, for myself at any rate, a spatial world, but not a *sentient* pilot in it. The pilot is a *content*, not an *agent* who is conscious or "scious."[1] The Cosmic Imagining creates reality which can be the seat of sentients—of you, me, and the men who work machine-guns in aeroplanes. It is well that our own present creative powers are less extensive.

Nonsense statements about motion —a saying of materialists.

Ridiculous things have been written about motion. Thus materialists have urged that conscious life is motion in the brain—a sort of abstract motion which is "transmissible" from one abstract material point to another. The truth is that conscious human life created this abstract motion, as product of its thinking, just as it has created the figment "material unit," held to be devoid of psychical aspects.

Cartesian errors.

The Cartesians thought that it is "inconceivable" that one body can make another move *without impact* (though steel filings, as we know, respond to the presence of a magnet even through glass, and the Earth is clearly not indifferent to the Sun and Moon). But it is equally "inconceivable," on Cartesian lines, how "a body" moves *after impact*, or, indeed, why it resists another at all. The

[1] Resembling in this respect *content* of the World-Idea or IMAGINAL before finite sentient agents began to be.

It is best, however, for certain reasons, not to decide in too sweeping a fashion that *all* the thought-creations, to which we give birth, are devoid of a sentient side *of their own*. There are certain "supernormal" phenomena that suggest an opposite view. However, at any rate, we do not create sentient pilots!

difficulty is that, for the Cartesian, "bodies" are only "modes of extension" not supposed to mask psychical life; the lives of the minor sentients or natural agents. As soon as you allow for these lives, difficulties vanish. There is no problem as to why my body moves toward the girl with the alluring eyes. There is a psychical impulsion: the furthering of my sentient life. Just so one primitive natural agent moves toward, or away from, another; its rude psychical being is somehow furthered or thwarted thereby, and its motions are the outwardly directed activity expressing these facts.

The Cartesians, again, could detect no connexion between conscious life and motions; and fell to the inventing of "Occasional Causes" to link them up. Of course, if you first separate the twain, you must take your severance seriously and not complain later of the deadlock. The truth is that, cosmically regarded, motion, so far from being severed from conscious life, is *one of the forms of its content*. Even I am conscious of motions among many other phases of content. The C.I. comprises motions and also men's thoughts about them—and indefinitely much else connected with this world-process. But there is no reason to regard these "motions" as more difficult to connect with its conscious life than are other contents; they *begin within it*, and we can even surmise, as in this essay, why and wherefore they begin.

"Absolute motion."

We need not dwell again on the controversy as to whether there are "absolute motions" measureable in terms of absolute space and time. Our

attitude regarding space and time has decided the one vital issue. If I could *perceive* at a glance the entire contents, which are finite, of the IMAGINAL manifested in Nature, I should aware a system with a perpetually altering arrangement of its members relatively to a *concrete* heterogeneous spatial whole and to one another. You can translate this situation into mathematical conceptions, if you like, but the main point to note is that suns, planets, sticks, stones, etc., are really altering real positions in a system, and can be understood as doing so, for the purposes of metaphysics, in the manner which has been suggested here.

It is sometimes asked—Would a moving body (*i.e.* a group of primitive natural agents) continue to move if all other bodies in the spatial system were annihilated; and, in this sense, does it possess an "absolute motion" of its own? The answer is that it would cease to exist as a body. Its reality, position, and motions presuppose innumerable relations with the rest of the system. These present, it is a body; these annihilated, it belongs no longer, by supposition, to a natural order at all. On the other hand, a completely *self-dependent* body moving in an absolute space, also a *self-dependent* entity (=merely room for motion), would, by supposition, continue to move, if the first law of motion is rigidly true. But the space in question is a conceptual invention, and the law also seems to require revision.

Metaphysics and the laws of motion.

Flamsted, a great practical astronomer of his day, looked on the laws of motion (the most impressive, perhaps, of the laws of Nature, next

to those of the conservation and degradation of Energy) as "crotchets" of Newton's; later, men came to welcome them as rigidly true revelations or general statements about Nature; later still, many are regarding them as hypothetical laws, true only on the supposition that certain conditions are fulfilled; conditions which, in the actual happening of the processes of Nature, are absent. Poincaré, again, calls them frankly "conventions"—not arbitrary, however, since they are framed on a basis of genuinely observed fact. The best resource is to treat them (as Dr Schiller does all axioms) as *postulates*, the application of which to phenomena must be subject to such modification as phenomena impose. In this way they prove useful in practice, and, at the same time, do not shackle our thinking.

The laws are not axioms but postulates.

The principle of inertia, or the statement that "every body perseveres in its state of rest or uniform rectilinear motion unless compelled to change that state by impressed Forces," makes use of the mathematical fiction "Force." Waiving this point, let us note (1) that the principle is, at best, *unverified*; that it is a truth-claim and not a truth;[1] (2) that, if concrete space is (as we maintain here) finite, the principle, as stated above, *cannot* be true. There is a limited area in which moving is possible. At the bottom of its formulation lies the notion of absolute homogeneous space—infinite empty room for motion—with a solitary body voyaging through it. We have seen that this space and this solitary body are alike conceptual inventions.

The first law.

[1] "Have there ever been experiments on bodies acted on by no forces, and, if so, how did we know that no forces were acting?" comments Poincaré.

Poincaré suggests a principle of wider application—"the acceleration of a body depends only on its position and that of neighbouring bodies and on their velocities"—and urges that this contention is verified by astronomy and may be applied with success even to the domain of the imperceptibles of physics.

The second law.

The second law, "change of motion is proportional to the impressed Force and takes place in the direction of that Force," also makes use of the fiction "Force." The "change of motion" is the only measure, and evidence, of the existence of the "Force" which otherwise completely eludes us. Hegel's criticism is relevant here: "All that is specified as contained in Force is the same as what is specified in the Exertion, and the explanation of a phenomenon from a force is, to that extent, a mere tautology." [1] Such a law, of obvious use in practice, has no pretensions to be a truth revealing Ultimate Reality.

The third law.

The truth of the third law, "to every action there is *always* an equal and contrary reaction, or the mutual actions of any two bodies are always equal and oppositely directed," has been questioned even by some writers on mechanics. And all who require *verification* by fact, before they accept a truth-claim of this sort as valid, must regard the statement as only approximately true. "There is not in Nature," observes Poincaré in *Science and Hypothesis*, "any system perfectly isolated . . . but there are systems which are nearly isolated. If we observe such a system, we can study not only the

[1] Wallace, *Logic of Hegel*, p. 213.

relative motions of its different parts with respect to each other, but the motion of its centre of gravity with respect to the other parts of the universe. We find that the motion of its centre of gravity is nearly uniform and rectilinear in conformity with Newton's third law. This is an experimental fact which cannot be invalidated by more accurate experiment. What, in fact, would more accurate experiment teach us? It would teach us that the law is only approximately true, and that we knew already. Thus is explained how experiment may serve as a basis for the principles of mechanics and yet will never invalidate them."

Conservation and the postulates of motion.

Bain found only one principle to be revealed in these laws—the conservation of "Energy" under redistribution. There is undoubtedly a *conservation* involved, but it is not that of an "Energy"-entity, criticism of which we need not repeat.

All laws that record uniformities of causation, approximate or other, bring us back to the *conservative activity* that concurs with creation in change. They indicate habits of Nature. The first *postulate* of motion, as we ought to call it, works usefully *within our limited range of experience.* Galileo's view of inertia, the ancestor of the law and of this postulate, asserted that once set moving, "free from the action of an extraneous body and left wholly to itself, the material point continues to move in a straight line so as to describe equal spaces in equal times." But what really is a "material point"? *Our* invention. What, in fact, obtains in Nature considered as independent of your and my perceptions? *Groups of sentient contents or agents,*

furthering and thwarting one another in a *concrete* space which is nothing apart from its different qualitative contents.

When a "material point," *i.e.* a group of such agents, is at rest relatively to contiguous groups in this space, it tends, as always, to *conserve* its state. This, however, is not passivity, *but an active conservation akin, indeed, to that activity whereby the C.I. itself, in the absence of a creative episode, endures.* In the case of "impact" there is a disturbance in the lives of the group, and the resulting action is escape from the invasive contents: self-conservation expressed in motion. This motion *always* leaves the group in relations with other groups, so that Galileo's case of a "material point," left wholly to itself, is purely hypothetical; does not obtain actually in fact. But let this pass. Note now that the motion is truly the expression of the conservative act and not an imparted attribute—it is the response of the group to the content-situation arising within it. The group's claim to a place in reality has been menaced. But once initiated the movement tends to continue: a new way of acting has been started, and this, too, in its turn tends to *persist.* Conservative psychical activity, such as we have discussed in this work, is the well-spring of the persistence indicated roughly by the first postulate of motion.

"Inertia" is conservative psychical activity.

Needless almost to urge that the minor agents are not lives such as we humans could call "intelligent." They are not, we may be sure, the seats of the distinctions of "self" and "not-self"; their "specious" presents must be of minimal span, in

which remembering and anticipating, as we understand them, do not figure at all. But, though these rudimentary sentients have no distinct memory, their pasts surely help to constitute and colour their "specious" presents. I am what I find myself to be now partly because my past included the climbing of mountains, irrespective of whether I remember or have forgotten these adventures. These last are embodied in the texture of my character. Even so, in George Eliot's words, "the sunshine of past mornings is wrought up into the bloom of the apricot."

The two other postulates of motion both indicate, as will now be clear, conservative psychical activity. We have pointed out already that, within any total causal situation, this conservation must obtain. If A penetrates B and C, it is present to this extent within them and is "wrought up" into the transformation or new "commencing" phenomenon. Take a case of action and reaction: *e.g.* that of a roller pulled by a horse and pulling accordingly. There is an active compresence of mutually penetrating factors in the total causal situation or "assemblage" of conditions.

"Potential" motion.

The case of "potential" motion requires a word. If I take a stone from the valley of Chamounix and place it on the top of the Grand Charmoz, I am expending, so say innumerable writers, "Energy," part of which is "conserved" in the "Energy of position" of the stone now some thousands of feet above the valley. But what is "conserved" in fact? The stone presses on the mountain-top even *more lightly* than it did on the ground of the valley. Are we at the mercy of a phrase? Yes—if we are

supposing that an Entitative Occult "Energy" is somehow "conserved" in the stone's position.

The stone, as we know it, masks a group of sentient contents or agents. These move toward other such groups, in the way called "gravitative," because their lives are, in some manner, furthered thereby. And this tendency in them, which answers distantly to what, in our own developed sentiency, we call "desire," *persists*. It persists on the ground of the valley—it persists, though not so strongly, on the top of the mountain. *Nothing else persists or is "conserved" on the top.* There is nothing which my climb up the spire of the Charmoz has conferred on the stone as such. It is storing nothing that I have lost. *If* it tumbles down to the valley again, it will acquire, of course, momentum stateable as so much "kinetic Energy" and "convertible" into heat, etc. But it may not fall at all. And, keeping its position, it contains nothing latent in the shape of an "Energy" which is striving, like Enceladus under Etna, to break forth. It comprises only a persistent tendency, comparable, perhaps, with "desire" in ourselves, which, *given other indispensable conditions*, will issue in motion.

Conservative psychical activity again.

Thus the conservation in this case carries us back once more to conservative psychical activity. If you want to "use" the stone to do work, you have to depend on, and "use," masked psychical factors. You do so unwittingly. The orator who wants to "use" a crowd, and seeks his end by enlisting the crowd's habits of emotion in his cause, does the same sort of thing deliberately. The supreme way of "using" folk is to let them follow their bent, while at the same time they are subserving yours.

§ 4. With the birth of concrete space and motions and the coming of the indefinitely numerous novelties rendered possible thereby, we are at the gates of inorganic (so-called) evolution; on the level of lowly forms of structural life. The IMAGINAL has transformed itself from a changeless harmony of simultaneous *content* into coexistences, ordered successions, attractions and repulsions of *agents* big with *new* content—in a word, into the protean process of Nature. And the principle of creation is conserved stably in the very swirl of its own illustrative changes. Again and again occur compenetrations that are conflicts and the creative imagining which brings provisional harmony to them. In the course of this imaginal improvisation arise what we may call *surprises*, *i.e.* events which could not have been foreseen even by a god at the dawn of change. This is the case also in human creative work, as when the very growth of his play, poem, musical composition, etc., compels the man to invent novel strokes, never contemplated when his task began.

On surprises in Nature.

These surprises occur on the large scale and in the detail of Nature. The system itself and the more or less discrete sentient agents within it are alike such stuff as fancies are made of. Surprises regarded as the objects of our likes and dislikes are of all sorts. Some are even abominable; would be unintelligible events of the abyss, were it not that chance-happenings, not fully subordinated to an overruling purposive life, have to be allowed for.[1]

Nature is remade from instant to instant in finite

[1] *Cf.* "Chance," Part II. Chap. V. p. 377.

pulses or steps of change; it is not a changing of infinitely numerous gradations.[1] The steps are akin to those which mark a creative task of my own; sudden jumps after relative rests. The primitive natural agents in meeting conspire to ever fresh results. These results, again, penetrate inevitably into other agents; and complexities of change multiply; "derivative laws" of causation and co-existence, as some call them, are originated in all quarters. Sooner or later *groups* of these agents, intimately related on a basis of mutual furthering, mutual promotion of one another's living, are born; and many of these attraction-complexes are to be conserved for enormous periods as measured by our standards of time. These complexes, again, attract other complexes, and there arise yet more important groups or primitive bodies. Complexes, with subordinate complexes, come to exist. These may be symbolised rudely as "sub-atoms," "electrons," "sub-electrons," and the like. Anon appear the complexes (which are veritable miniature systems) symbolised in chemistry as "atoms"; their species or kinds having different dates of origin and longer or shorter careers. "Inorganic" evolution, chemical, astronomic, geologic, etc., will have begun.

"Inorganic" evolution at last.

Before proceeding further we shall indulge in a digression, rendered timely by the constant references to "sentients" which are being forced upon us. And in doing so we shall enlarge our grasp of what we have termed the IMAGINAL or World-Idea in a very important way.

[1] *Cf.* Part II. Chap. III. § 4.

CHAPTER VI

ON THE DIFFERENT SORTS OF SENTIENT AGENTS FROM THE LOWEST PRIMITIVE NATURAL AGENTS OR NUCLEARS UP TO LEVELS DESCRIBABLE AS DIVINE, WITH A PRELIMINARY DISCUSSION OF THE EVOLUTION OF GOD

§ 1. THE lowest kinds of sentients have figured already in our account of the sundering of the IMAGINAL and the birth of change. On their *content* side these sentients are instances of Imaginals whose character they share, being, indeed, the many, immanent in these existents, which are now "loose" in the world-process. Thus a speck of red is an instance or particular example of the Colour-Imaginal or Colour-Idea in the World-Idea ; which Imaginal, as already observed, must not be confused with the " universal " or conceptual phantom of platonising writers. The content, which shares an Imaginal, is never pure ; it is shot with threads of other contents belonging to other Imaginals in the World-Idea, wherein anything is always penetrated by much else (though not by " all else," as the analysis of causation made clear). Any content, then, of any agent is only " simple " relatively to the more complex contents of the agents which are to arise later.

"On their *content* side."

These minor agents, which lie so far below the level

The primitive natural agents are not "monads" or "selves."

of "protozoic" sentiency, must not be confounded with either "monads" or "selves." They are not windowless entities, members of a pluralistic harmony which are self-dependent and exist in solid singleness. They possess contents which *are of one tissue with the rest of the contents of the* IMAGINAL, *and belong, indeed, primarily to this* IMAGINAL. It is its "scious" side, lighting, as it were, a tiny area of these contents, that *detaches* the minor agent, in so far as it can be detached, from other agents and from the common IMAGINAL. Each "scious" agent is aware of content; awaring is never bare, but always of this and that and those contents. But the concrete life which awares contents *a*, *b*, and *c* is cut off from the concrete life which awares *d*, *e*, and *f*. Thus the arising of the agents, which are all "scious" of different and very limited contents, is secured at a price. Finite "scious" life is born necessarily in a solitude. Each sentient seems to exclude every other. It is that which awares *a*, *b*, *c*, and *not* that which awares *d*, *e*, *f*. It is, also, a conservative awaring activity in respect of *a*, *b*, *c*, and, failing penetrations, might never alter into anything else through eternity.

The "solitude" of sentient life.

Is it a permanent feature of reality?

This *solitude* of finite sentient life which often oppresses and dismays us, even in crowded haunts, seems a feature of the time-process which is not destined to be permanent. It is not, of course, an "illusion" (as some mystics have called it), but it depends, it would appear, on conditions that are unstable, that cannot endure. Even now the sentients are not only parted, but interconnected, by the contents differentiating them; these contents belonging to common Imaginals and that larger whole—the IMAGINAL—as well as showing in them.

And, again, there is an identity in *awaring* common to all possible instances of it which we can conceive. But the question of the permanence or impermanence of the insulated sentient is not yet relevant.

The lowest sentients and "selves."

The lowest sentient, we said, is certainly not "a self." "Self" and "not-self" are slowly won distinctions within a centre of relatively advanced conscious life. You do not ask whether a jellyfish or amœba—and these are on a level of sentiency much higher than that of the primitive natural agents—is to be regarded as "a self." Any and every stream of experience does not comprise "a self." On the other hand, it may comprise many. In the case of human sentients, there is a "neutrum" within which the "self" and "not-self" distinctions arise; and occasionally, indeed, several different "selves" may originate thus within one stream. But none of these will be felt as realities *identical with their pasts*, and, therefore, as "selves" genuinely worth the name, unless memory is present on a scale which no undeveloped sentient could enjoy.

Nuclears.

These lowest kinds of primitive natural sentients may be called *Nuclears*, as being the nuclei round which all subsequent evolution of Nature complicates. The Nuclears are the ultimate qualitative "radicals" of pre-chemical "inorganic" evolution; the *relatively stable cores* in the flux, just as the eighty-two "elements" so-called are for "inorganic" chemistry, and the carbon "radicals" are for organic construction. The Nuclear might be compared to the word. This latter in use has a more or less stable core of meaning with which it enters into

relations with other words ;[1] a meaning, however, which affects, and is affected by, all the context-words and the whole into which they melt. Altered thus in one context, it is altered otherwise in another, and yet is felt to retain a certain intrinsic stability the while. It is an "elastic" device which can be stretched in different ways without hurt to itself. Nevertheless, slowly but surely, as we apply it, its meaning for us will change. So in the case of the Nuclear. It is sufficiently "elastic" to vary with varying relations, sufficiently unstable to be of value to a changing world. The varied stabilities of Nuclears are necessarily of enormous importance: a vital aspect of the immanent plan. They are the custodians of "natural Energy" and quality, and they underlie the different stabilities which characterise the chemistry of Nature. The careers of physical systems, as we know, are limited by the rates at which their "atoms" move toward dissolution ; and these rates presuppose the enduring of the units which the "atomic" complexes comprise. If the career of Uranium, as has been calculated, is one of 7,500,000,000 years, that of the Nuclear of one of its comprised "sub-atoms" or "sub-sub-atoms" will be indefinitely longer.

Do the Nuclears show the rudiments of emotion and choice?

We do not regard the Nuclear-awareness as including the contrast of "self" and "not-self." Can it be averred that these psychical existents comprise events akin to emotions and choice? The reply is that it would be absurd to credit even an amœba with an emotional life as *we* understand the term. And the contents of the lowly Nuclear

[1] A word with two separate meanings is truly two words. I am not considering that.

are too poor to support speculations about "loves and hates," etc., which presuppose a relatively high psychological level. But we cannot refuse to allow even the Nuclear a rudimentary affective life.

Nature implies a conflict of crossing or interpenetrating content-activities, conditioning the imaginal creations that continue its process. With the mutual furthering and thwarting of these contents go "vital feelings" such as we class under the very comprehensive heads of "pleasures" and "pains." This much is to be *inferred* from experience of psychical process as revealed in our own lives. But our experience is illuminative in another way. In the cases of pleasures and pains, such as are obviously marks of the furthered or thwarted functions of the body, I am in *direct* touch with certain of the lower psychical existents allied with my conscious life. I comprise, *e.g.*, in my "depressions," "neuralgias," "hopes," "fears," "enthusiasms," "glow of health," "anger," "love," etc., etc., elements which convey and *are* the very vital tone of these psychical existents themselves. In this way I am directly aware of the fact that one of the things in Nature called "bodies" masks contents that are coloured by pleasures and pains. I have "inside information."

They have rudimentary affective feelings.

"Pleasures" and "pains" in all their kinds, modes, and intensities are *vital* feelings, *i.e.* essential features and marks of the furthering and thwarting of sentient life. When such life is intense and unthwarted, it is always happy; when thwarted as in the conflicts of the time-process—*and there only* —it is tinged, suffused, and even saturated with

pain as the conditions dictate. Creative improvisation, if it does not abolish conflict, merely alters the kinds of pain, since new painful situations attend the new conflicts. The martyrdom of man in History supplies an illustration. Each creative historical solution or remedy leaves the patient sickening with a new disease.

We cannot, however, say that the affective life of a Nuclear, or indeed any minor sentient, resembles closely this or that among our particular pleasures and pains. When we experience a burn, a foul taste, a torturing colic, we are in touch, indeed, with the affective states of *indefinitely many* related minor sentients, but we do not get remotely near the states of *single* ones which must ever elude a direct experience limited so narrowly as is our own. It is best always to confine ourselves to very general statements in discussing the psychology of these elusive denizens of the abyss.

The Buddhist lamenting the reign of *Dukkha* (ill), and urging the wise to seek to escape from the "wheel of rebirth," voices the very widespread revolt of human beings against their present lot. *We* are obviously in the valley of the shadow. The animals are less in the shadow, in part because they really suffer less, in part because they take things as they come and cannot think about the worth of their lives as wholes. And in the great underworlds betwixt animals and the Nuclear, there is far more sunlight than shadow. In these depths, indeed, we can infer from the intense activity what, in our language, would be called a riot of joyous living. A study of the "Brownian movements" and the

" imperceptible movements " which underlie visible Nature prepares us to understand this. " Electrons," which complete their " atomic " orbits thousands of millions of times a second, are cases in point. Here is the *normal* " joie de vivre," which *only in the cases of certain classes of sentients* becomes dominated by pain. These lives in the depths, you will say, are relatively simple with very simple affective states. Obviously. But you may add, perhaps, " what monotony must there be on those levels ! " The suggestion is that monotony is *necessarily* unpleasant : a totally false assumption based on mere *physiological* reasons applicable to the cases of sentients with bodies like ours. " Monotony," if it implies activity which, in the main, is unimpeded, may be a delight. And are you sure that the " monotony " on the lower Nature-levels is quite what you conceive it to be ? Remember that we are to be obsessed no longer by the mechanistic symbolism of science. We are discussing *lives* or psychical existents, and not those ghosts of defunct billiard balls which mechanists create. We are considering, in short, the *Dance of Life*, instead of a drab and depressing dance of the dead.

Pleasures and pains are not, it will be evident, isolable phenomena which could be supposed capable of existing by themselves. They are adjectives inseparable from other qualitative content. This taste is not mixed with " pleasure " ; the " taste " is pleasant, and the " pleasure " is the sort you get only with the " taste." The search for a separate distributable existent " pleasure," " happiness," " loveliness," " joy," or whatever it is to be called, is as profitable as the hunting of the Snark.

Choice and the Nuclears.

Choice implies a preference between alternatives of action. In so far as Nuclears conserve themselves in the flood of furtherances and thwartings, you may incline to say that they choose or select lines of action. But, after all, they are not "selves" able to hold their pasts deliberately in review and to anticipate their futures; and choice, with the meaning it has ordinarily for us, cannot, therefore, stand. Such preferences as Nuclears show are embodied in the immediateness of their actions, not in a distinct reflective selection between alternatives. In regard of a much higher level, *e.g.* that of the phagocyte which approaches effete cells and avoids healthy ones, or that of a bacterium, which is said to spot "even the trillionth part of a milligram of oxygen" (Ribot) in a body near it, we ought to hesitate before we speak of choice. Reflective choice may be suggested and the contention becomes absurd. If, however, the choice suggested is that present when I do one of two or three possible things "on sight," as in selecting places for steps when running, or the best potato in a dish offered at dinner, the contention is worth consideration. But the fact that the phagocyte or bacterium is not a "self" compels us to use our phrases warily indeed. It is idle to employ words which imply that phenomena, differing considerably, don't differ at all.

The "identity" of a Nuclear.

The identity of a Nuclear may be understood thus. It changes, but always with a core of more or less stable content which is forced to lose certain qualities and to accept others. In ten million million years its last stage may be very different from its first, but what of that? Identities always

change in the time-process. Its *qualitative uniqueness*, which distinguishes it from other Nuclears, is assured by the fact that no other sentient of its kind can undergo quite the same vicissitudes ; their *places* in concrete space assigning to them different careers.

All the parts of Nature may be seats of sentients of these lowly sorts, so that there is no content which is not present to *some* " scious " agent. But the contents of these primitive agents, again, may be present to other sentients of wider grasp, and so on ; and there may even exist *interlacing areas* of contents, present to different sentients of different grasps. My own conscious life grasps a mass of contents which, in some manner, clearly show to minor sentients, *e.g.* those of the cerebrum, as well. And the area of total content which I aware may show, also, in some manner, to superior sentients, and even to the overruling conscious power of the World-System or God. I am conscious of a content-expanse with no clearly marked boundaries, and continuous, it would seem, with territory not open to my inspection at all. The reflection raises many interesting problems. On areas of sentiency.

If all contents of Nature are present to sentients, lowly or lofty, we get rid of the last vestige of the " philosophies of the Unconscious." Even the " subconscious," which is said to influence my psychical processes, means that content which is not present to me, as a sentient, can, nevertheless, help to change the content which *is* present to me. But that which is not present to my sentiency is

present to other finite sentients, and does not, therefore, fall within the "subconscious" at all.[1]

"Behaviour" as the clue to areas of sentiency.

Consider the domains of Nature symbolised as "atomic," "molecular," "molar," in terms of "extension" and "resistance." Repudiation of the Unconscious holds good—all the Nuclears of Nature are sentient lives. But it leaves the problem of *other areas* of sentiency acute. Is a given body a complex of Nuclears and somewhat higher minor sentients, or is it, also, the seat of a superior overruling sentient or sentients? Organisms, ordinarily so-called, present great difficulties. I am a superior sentient with a footing in the complex called my body. This much is clear. But many grades of inferior sentients may have seats there as well.

Behaviour offers us the only clue, and, according to what you think of this behaviour in a given case, you will decide the issue. Indications of behaviour induce me to credit men, snakes, worms, with sentient life; failing such significant actions, my effective inferences vanish. The inquirer, then, must decide for himself *what bodies* and *what areas of bodies* are the seats of controlling sentients.

The "atom" regarded as a minor sentient.

Many idealists have been convinced by the test of behaviour in the case of the "atom." "We may not be in the habit," writes Dr Schiller, "of calling the formation of atoms an evolution of spiritual beings, but the process which developed the material world and developed spiritual beings is one and the same." It is a question only of

[1] And, of course, no contents, however shared by finite sentients, can fall outside the C.I.

re-interpreting the symbolism of science aright. At present this symbolism, endeavouring to maintain itself against the view of the atom as a "spiritual being" or psychical reality, creaks badly. You have an illustration in the treatment of "attraction." "Attraction," as we saw, presents no difficulty, if we regard it as a psychically controlled process; as a case of "furtherance" of sentient life on our lines. But, if you resent this interpretation, you may have to put up with ignorance eked out with verbiage. You have, for instance, to look at the chemical union of H and O and call it "tractation," leaving the phenomenon labelled indeed, but otherwise ignored.[1] And extending this procedure into further fields, you are embarrassed similarly. Consider, say, fertilisation in the case of the infusorian colonies of Volvox. We have the cases of one colony which produces only ova and of another which sets free only spermatozoa. These latter, nearing ripe ova, are "attracted" at a short distance and conjugation ensues. "Attracted" —how? By "chemiotaxis" is the ready reply, substituting the dictionary for explanation which might involve a psychical factor. "Chemiotaxis," I note, is defined by Professor J. G. M'Kendrick, the physiologist, as a "property of attraction drawing," etc., an evasion which repeats in an

Its "attractions" a mystery to mechanistic science.

"Attractions" of organic bodies explained as "chemiotaxis."

[1] "Just as no explanation is possible of gravitation, none can be advanced of these cases of physical and chemical tractation [attraction of steam molecules to form water and union of H and O], unless we ascribe 'affinity' and 'incompatibility' to molecules and atoms as if they were human."—F. Soddy, F.R.S., *Matter and Energy*, p. 129. There is no call to suppose them "human"; we need only regard them as seats of psychical processes of certain kinds far below any level which can be called animal.

obscure verbal form the very phenomenon to be explained, and recalls verbiage of the schoolmen.

Ribot on "pre-conscious sensibility."

On the other hand, the psychical factor is forced on the attention of Ribot when he discusses "pre-conscious sensibility," or, as we ought to call it, the sensibility which precedes that of conscious sentients *such as are recognised by ordinary psychology*. "We know that the organism has its memory; it preserves certain impressions, certain normal or morbid modifications; it is capable of adaptation; this point has been well established by Hering (who had been preceded by Laycock and Jessen). It is the outline of the superior form of psychic conscious memory. In the same way there exists an inferior unconscious form—organic sensibility—which is the preparation and outline of superior conscious emotional life. Vital sensibility is to conscious feeling what organic memory is to memory in the ordinary sense of the word." [1] The sensibility is not "pre-conscious," or it would not be sensibility at all—this is a survival of philosophies of the Unconscious. It implies sentient agents. Only once more we have to note, as in all these cases, the extreme difficulty of inferring what these agents are and what are their *areas*.

"Atoms" as members of living species.

If "atoms" are symbols for sentient agents (not merely for *collections* of agents moving with extreme velocity relatively to one another in concrete space), we shall recognise them also as members of living species. The eighty or so "elements" of the Periodic Table are the protozoa and protophyta of the physical world, with "compounds,"

[1] *Psychology of the Emotions*, English translation, pp. 3-4.

as more advanced species, not derived from, but created with, them. The members of each species differ slightly from one another as in the cases of biological species ordinarily so-called. No experiments which we can make would overrule this contention, for in all these the "uniformities" obtained would be approximate and depend on the *behaviour of great numbers*, in which particular differences are lost to view. Most of these eighty "protozoic" species are the relatively stable survivors of a cosmic struggle, but there are "radio-active" kinds, basic changes in which are rapid enough to be detected. In the timing of these changes (which include innumerable "pellations" or repulsions of "sub-atomic" agents) we sight again the immanent cosmic purpose. Were it not for the "radio-activity" of these few "elements," a solar system such as ours would not be mothering its present denizens.

Differ from one another.

Dr Schiller, who observes that certain experiments, *e.g.* those of Sir W. Crookes, irresistibly suggest that there are "individual differences and individual characters" among the "atoms" or early "spiritual beings" of the evolutionary process, urges that, even on this level, we can infer "individual entities combined with others into social systems: and though our elements be complex, their name would not be wholly undeserved in that their structure is simpler and their generation earlier, than that of any other forms of sensible matter"—or, as we prefer to say, Nature. These "social systems" are, of course, below the level of even infusorian "societies" or colonies. But, if their units are psychical agents, can we deny them this

Dr Schiller's "atomic" social systems.

"social" relation outright? If we do, let us not object, if a superhuman philosopher of Sirius treats us humans also as "atoms" of "uniform character" who contribute "unconsciously" to the rigid causal sequences of which he believes our planet to be the seat! This decision *de haut en bas* would be as unjustifiable as the other.

On Sentients above the Human Level

§ 2. Sentient agents and kinds of agents, inferior to man, and indwelling in all portions of Nature, must be indefinitely numerous, and great surprises await the inquirer who has once got rid of mechanistic thinking. A return to Paganism in an enlightened form seems inevitable; once more clouds, air, sea, fire, dry land, and the "undiscovered countries," as yet veiled from most mortal eyes, will be found peopled with these beings, none the less real because some of their *habits* have been recorded in the useful shorthand which men respect as laws or uniformities of Nature. Once more Nature, psychical throughout, will be known as consisting not of mere contents, like the contents of our experience, but also of conscious powers, whose activity is the urge and drive of change. An enchanting novel interest will be added to our workaday lives; the ugly, drab materialism of the current creeds of Christendom will vanish; and ultimately poetry and science, each ennobled and amplified, will meet. We shall cease to speak of the "material" world, and leave fancies of that class to the mathematical physicists and dryasdusts who seek, for their special purposes, to bleed Nature white.

A return to Paganism.

On superhuman sentients.

It will be necessary, also, to allow frankly for the reality of sentients superior to ourselves; a point not overlooked by thinkers like Fechner and William James. James, indeed, hit upon one of the blemishes of European philosophy when he took note of the strange disinclination of so many eminent writers to admit that humanity is not the last word, and urged that heaven and earth may well contain superhumans not dreamt of in various impressive historical world-views. Bradley, however, is not open to this criticism, since in *Appearance and Reality* he tells us that "every fragment of visible Nature might, so far as is known, serve as part in some organism unlike our bodies," and that "we can set no bounds to the existence or powers of sentient beings." Thus a vista of immense theoretical and even, it may be, of *practical* importance to our successors is opened up. The discarded Paganism is again pressing on our thought, and who is to say to what this recognition may lead? Finite gods and superhumans, insufficiently wise, moral, or powerful to merit this title, might, as I have urged elsewhere, "be inferred correctly from such marks of purposive ordering as selected portions of reality present. Finite gods would be, for us, 'ejects' of a superior kind. I might believe in such superior 'ejects,' just as I now believe in ordinary human and animal 'ejects.' Certain cosmic happenings might suggest these, just as the movements, etc., of animal bodies suggest those . . . you may come to infer the reality of finite gods from the evidence of . . . marks, *e.g.* from the intentional arrangements and directions of activity which Nature [and even History] may display. I agree, however, that these marks may not leap to the eye. The world

may be guided in ways exceedingly hard to detect. Thus the purposive modification of a germ-cell might have enormously important results, but who of us, confronted with those results, could say—Lo! here is the work of a god." [1] We must go very warily or we shall be bogged in preposterous superstitions in our turn. But the point is that we must cultivate the open mind and be ready to detect, if possible, such evidence as the waves of time cast on to our intellectual shore. Unless we are on the alert to perceive it, we shall never, perhaps, succeed in perceiving it at all.

There may exist powers which are above the level of insulated or discrete personality.

Some of these powers may be above the life of *insulated* personality; of the separate "I" which contrasts its particular stream of experience with other particular streams in which it believes, but which it does not include. Sir Edwin Arnold in *Death and Afterwards* bade us conceive "coalesced existences" as superior to persons as the tree is to the cells of which it is composed; the *exclusive* human conscious life being a mark, as it is, of weakness and defect. This, too, is a very important consideration which may not be overlooked. The higher conscious powers of our World-System—I do not say of minor worlds such as the solar system and its unseen complementary levels—are, perhaps, not separate persons, but enjoy a being which comprises associated agents. Just as in my experience I grasp very many contents, so a power of this sort may grasp and include very many conscious centres along with its contents. It would hardly be possible to reach any exalted stage of conscious life, unless the onesidedness of the insulated agent

[1] *Individual and Reality*, pp. 405–6.

is to be surmounted in this way. Insulated personality, in short, means grievous limitation and defect. And this thought must needs colour our further inquiry into the nature of the being of God; the issue round which so much controversy has gathered since men began to reflect seriously.

God

§ 3. Many men in many countries, but by no means in all, desire to believe in an overruling conscious power that makes for perfection. They would not be content with a polytheism pure and simple. For many gods do not conspire inevitably to harmony; and there are other disturbing considerations which cannot be laid. Again, they would not regard the Cosmic Imagination as satisfying the heart's desire. And their point of view cannot be ignored by us. The C.I. is indispensable for *metaphysics*—agreed. It is the all-sufficient infinite ground of appearance and of all that therein is. But what these men want, for the purposes of religion, is not the all-inclusive infinite ground, *but a limited Power supreme in their particular World-System*; a Power very wise, very beneficent, and very active that can be looked upon as their "Father in heaven." A God of this type is necessarily limited, whatever epithets may be attached to His name. All Gods, indeed, who inspire popular enthusiasm, are limited; they are beings who are greeted unmistakably as *protectors and allies*. The current saying "there is a God" implies that God is finite, as Hegel remarks. Now does metaphysics support the view that "there is a God," a finite God supreme *in this particular World-System*? We are

The wish to believe in God.

A finite God is in view.

The God of this particula World-System.

not discussing a plurality of World-Systems, each one of which, indeed, may have a finite God of its own. We are thinking of that System, the visible portion of which dazzles the astronomer with thousands of millions of stars, a System in which our petty planet seems almost lost. Has *this* World-System an overruling conscious power, not inaptly described by the name of " Father in heaven " ?

Misrepresentations of this ideal in History.

There are sinister representations of God even among the greater popular religions of History. Man, too near in origin to the beast, has created overmuch in his own image. We must work aloof from the hideous inventions of the past. Let us consider the issue just as does the Deist without reference to any competing faiths. Is there, then, any evidence of the intellectual sort which tends to validate the hypothesis of a finite God ?

God as the conscious side of the total evolving World-System.

There is. We found long ago that the ultimate continuity of the universe is *con*sciousness. *Con*sciousness is the continuum-side of the contents of the C.I. And, wherever there obtains continuity, we are to infer, at some level or other, a grasping *con*sciousness or consciousness*ing*, as it would be more accurate to say.

Now in discussing the beginnings of our World-System, we urged that an original harmony was broken and the "looseness" of a conflict of multiple agents began. But despite this " looseness," we had to recognise that the continuity of the World-System was never *completely* broken ; had it been broken, the multiple agents would no longer have been in touch at all. Nature is not merely an inter-

acting Many ; it is still that in which the Many are somehow together. And this continuity of the Many persists and is found to dominate more and more noticeably their discords. In the heart of strife itself there arises a movement of return to harmony.

God and the continuity of the World-System.

This *continuity* in the evolving World-System announces to us the *consciousness* of a nascent God whose body, so to speak, is Nature. The growing harmony amid the initial chaos is this Power—at first an infant Hercules—evolving slowly into full glory: the World-System itself, limited by its original conditions, rising into a divine life. All content has its conscious side: is present to finite sentiency of some sort. The contents of Nature, and even the finite sentients awaring them, are present, at any rate in part, to the nascent God.[1]

Mill on a finite God.

John Stuart Mill, looking patiently on the evidences of design in the world, inferred a God "of great but limited power, how or by what limited we cannot even conjecture ; of great and perhaps unlimited intelligence, but perhaps, also, more limited than his power." This is the verdict of the "Essay on Theism." We, on our part, can state the limitations of this God broadly as follows.

[1] "In part." Only a very small portion of the contents of my body invade my conscious life. *E.g.* I know nothing directly as to what is going on in my right ventricle, liver cells, spinal cord, etc., at this moment. And if we regard Nature as the body of God, there is no call to suppose that *all* the contents present there invade God's conscious life. If we suppose God to be aware of *all* sentient life in the system, we shall have to allow that much that is abominable, nay infernal, pollutes His experience. His *particular point of view* does not require Him to know everything any more than we need to know all about "sub-electrons."

The limitations made intelligible.

The initial World-Idea, or harmonious IMAGINAL, was *content* in and for the C.I., but *not for itself*, *i.e.* it was not conscious of itself as such. But it is to become conscious of itself. The finite God arises subsequently to the "quickening" already described. He emerges after Nature has started on its career, just as you and I arise (so far as our present lives are concerned) after our bodies have been developing for a considerable time. He is an infant Hercules, but has to grow in wisdom, morality, and power; is limited by the conditions of His "body," and by the character of the subordinate sentients of which it is the seat. His worlds and Himself are but ripples on the ocean of the true infinite: the C.I. which remains the supreme interest of the philosopher as contrasted with those who ask no more than certitude regarding the existence of God.

God is our particular World-System becoming a conscious power.

George Du Maurier on the evolution of God.

George Du Maurier in his admirable novel *Peter Ibbetson* has written in this way of God as "in the direct line of a long descent from us, an ever-growing conscious Power, so strong, so glad, so simple, so wise, so mild, so beneficent, that what can we do even now but fall on our knees with our foreheads in the dust, and our hearts brimful of wonder, hope, and love, and tender shivering awe and worship *of a yet unborn, barely conceived and scarce begotten Child*—that which we have been always taught to worship as a Father—*that which is not now, but is to be*—that which we shall all share in and be part of in the dim future—that which is slowly, surely, painfully weaving itself out of us and the likes of us . . . and whose coming we can but faintly foretell by the casting of its

shadows on our own slowly, surely, painfully awakening souls."

Let us suggest, withal, that it is not merely "weaving itself" out of finite sentients such as ourselves and "the likes of us." It is the total World-System regarded in its conscious continuity, and exists as such, and not merely by grace of such subordinate sentients as it may carry within it. As such it is the God with Whom all helpers of progress can co-operate by living very richly and fully; they are at the sowing of the crop and the harvest is to be for them.[1] A kindred conception is voiced by Rénan when he dreams of a Divine Individuality "acquiring a supreme strength," gathering into Itself "millions and millions of lives, past and present, at the same time." There are those who resent the presence of a God who escapes (like the genius from the bottle) from the pages of a sacred book to tower threateningly above them; an overlord Whose might is the gift of chance and Whose interests can hardly be theirs. They will have no quarrel with the Power that we have described above.

Rénan's view.

And thus we come to see that the "corruption of eternity" or time-process brings its compensation: the EVOLUTION OF GOD. And this Evolution, dawning amid the turmoil of Nature and despite the inferno of sentient history, may close with the redemption—the return into harmony—of the World-System in which it begins.

[1] If we can speak of "them" at all. "It is no longer *they*. There is no *they*! That is only a detail," writes Du Maurier of the consummated conscious life of the world.

CHAPTER VII

THE EVOLUTION OF NATURE (*continued from* Chap. V.)

More about primitive repulsions; the "pellations" of agnostic science.

§ 1. THE "attractions" and "attraction-complexes," which present so hopeless a riddle to symbologists of mechanistic bent, are remarkable indeed. But "repulsions" (or "pellations" as some call them) are equally surprising, as a glance at electron-literature reveals.[1] A theorist, for instance, who attempts to "condense" negative electrons into inorganic Nature must be sanguine.

Primitive repulsions express the conservative psychical activity of the Nuclears and Nuclear-complexes in movements such as conduce to the least thwarting of the implied sentient lives. They are escapes from such penetrations as bring sheer

[1] Note the extraordinary resistance to "condensation" or concentration which free "negative" electrons—"positive" electrons are still treated by science as quite hypothetical—would present. Take as many electrons (7×10^{23}) as there are in a gram of hydrogen. "If two such quantities of electricity were placed, one at the North and the other at the South Pole of the earth, they would tend to pellate so strongly that, even at this distance, a fairly thick steel cable, capable of supporting a weight of 35 tons, would be necessary to keep them from moving apart. Since the pellation decreases as the square of the distance, if two such quantities are placed near together, no material bond would hold them" (Soddy, *Matter and Energy*, p. 166).

conflict—the avoidance by incompatibles of existence even alongside of one another, *i.e.* contiguously, in concrete space. This space, wondrous invention that it is, permits agents to *co*exist, but at different points, and it renders their *contiguity* and *remoteness* not in the least metaphorical, but genuinely real. The agents are truly placed thus and thus in the Nature which Cosmic Imagining constructs.

Primitive natural agents alter their distances less actively as the distances increase (*e.g.* the "pellations" of the agents *symbolised* as "electrons" decrease, as we are told, as the square of the distance); that is to say, they are less disturbed by one another's spheres of influence as they fall apart, and the less they are disturbed the less are conservative responses forced from them. Actually, of course, they are penetrated by such varied content, as well furthering as thwarting, that their positions are always a compromise. Like ourselves, on our higher level, they are tending to move in different directions, at once seeking, maintaining, avoiding, though not with that distinct memory and anticipation which we humans associate with a "self." Their actions can be discussed *as if* they were mechanical, because they have the constancy of habits and lend themselves, accordingly, to calculations and predictions; their great numbers obscuring the variations which may occur in individuals. But this mechanistic category, though useful, is untrue. Its meaning is that the agent's behaviour is imposed on it by a power *outside itself*. This behaviour, while responding to incursions from beyond the agent, expresses, also, the agent's own *conservative act*.

The position of a natural agent is a compromise.

§ 2. This obstinate conservation, which is ex-

pressed in repulsions, is expressed, also, in the attractions; both alike evidencing the compresence of natural agents in a common ground, from which, "loose," as they are, they never escape.

Gravity.

One of the most striking forms of their mutual attraction is, of course, Gravity—a law indicating habits which are surprisingly general. We cannot hope to surmise what the actual experiencing of the attracted agents is like, living as we do with perceptions that veil such penetralia of Nature. We must be content to say that processes of psychical furtherance are involved. But disregarding the detail of Gravity and treating it generally as an important feature of the World-System, we can characterise it much as did Hegel. Nature wearing the form of "out-of-itselfness," or "self-externality," Gravity is an initial overriding of this form, a step toward "self-internality," to the "being within self" of Nature; evidence of the truth, as we might say, that Nature is not only *many*, but also *continuous*; a multiplicity in unity as the actions of its existents, however remote from one another in space, attest.[1]

Its general significance.

Cohesion.

This continuity is equally indicated by "Cohesion," a mode of attraction irreducible to the gravity-formula, and vanishing, indeed, at a very small distance of one complex from another. In the kinds of attraction ordinarily called chemical, and in those of solutions frequently so-called,[2] the return to integration or a

[1] Hence Hegel's saying, "The centre of gravity of a body is the oneness which it seeks."

[2] Solution-combinations differ from chemical in that the proportions of the combining agents can vary between wide limits, while the alteration of their properties is slight. And solution is usually attended by cooling. Solution is necessarily of great importance to biology.

more complete harmony is marked. The chemical relation, ordinarily so-called, is very interesting in this regard. It illustrates, as we saw, not "*com*-position," or the close coexistence of unaltered units, but their transformation, *though with conservative features*. Thus H and O are water by and in one another (their mutual penetrations being intimate), while, a fact worth noting, their definite proportions by weight show, once more, the rule of what we referred to as the "divinity of measure." One sees clearly in the word "*com*position" the false idea that alterations of *place* are the main occurrence in chemical change.[1] In truth, throughout this chemical domain, the attractions, which are attended by changes of place, imply also content-transformation. Unlike changes of place on the part of like combining agents, as in cases of Isomerism (*e.g.* Butyric Acid and Acetic Ether), imply *different creative responses* to the different penetrations implied. Chemical attractions and those of solutions.

The chemical relation presupposes attraction-complexes, conditions of "heat," contiguity, etc., not present at the birth of a World-System, and is thus a landmark in the history of *creative* evolution. Its combinations, when lasting, tend toward the solid. And it may be a further clue to its character if we note that, in general, the more the agents differ, the more energetically will they combine and resist "de*com*position"; another word with a meaning that must be brought to book. This preference for

[1] A concession to the Democritan atom, one of the "hardiest annuals" ever invented by man, since it persists in the Daltonian and Newtonian atom, and even in the mechanistic fictions which are popular in science to-day.

unlike partners suggests mutual furtherance by complementary penetrating contents.

Chemical transformations and "law."

The creative response—of the character of imaginal novelty—in the chemical relation may be habitual, and hence support a generalisation or "law." But in the case of the *first* response of the kind we have sheer "lawless" initiative: *e.g.* if, profiting by the intense temperature of the electric furnace, I succeed in obtaining a carbide, not hitherto present in the World-System, I have provided the collocation of carbon, metal, etc., requisite for a genuine creative stroke, without forerunner. The decencies of language ought to forbid us to speak of such a novelty as *resulting* from prior "laws" of Nature. It is essentially a new thing, whatever other features of the antecedent World-System may be conserved along with it.

What ought we to mean by the "materiality" of the physical order?

§ 3. What ought we to mean by the word "materiality" as applied to the physical order? When my fist strikes a post I experience *resisted* muscular effort, and say that the post *resists* being moved. Also, if the post is moving in the direction of my head, I find that it *resists* being stopped and alters, very unpleasantly, the position of my head. Sometimes this *resistance* or "inertia" is added to space-occupancy or extension and regarded as the stuff of which the "material" world consists. This substitute for sensible Nature is used by the mechanists and has no value for ourselves. That which *resists* its place being occupied or place being denied it is not an abstract quality, RESISTANCE, but a *psychical complex* which happens, *under certain conditions*, to be active in this way, but which, under others, need

not *resist* at all. It *resists*, in short, only opposed complexes, and at other times is and is doing something else.

But if we cannot interpret "materiality" thus, what are we to mean by it? The answer seems to run as follows. The lower *psychical existents* of Nature, masked by the physical order, are (1) the seats of internecine conflicts and resist one another freely, in this richer sense of the term, being continually invaded by, and responding to, contents from sources *extraneous to themselves*. (This is that feature of the "self-externality" of Nature so often discussed.) (2) As related to *us* these psychical agents are, to a great extent, *obstructive and unplastic* influences. They seem to oppose us stupidly (though very active in their own ways), because their habits are stable and run counter, in great measure, to our wishes and purposes. They are "obstructive" as when they refuse to allow my purpose of training my body into perfect subjection to my artistic or other needs to be realised; "unplastic" as when the sensible landscape before me refuses to alter at my mere command and requires me to *move things* to accomplish some very humble result. Thwarted in this way I revenge myself by denouncing the "materiality" of the physical order.

Mindful of such kinds of resistance, we can charge the physical order with showing "materiality"; no outworn mechanistic assumptions being involved. Are there other levels of reality — experienced by other sentients in other World-Systems, or to be experienced, perhaps, by ourselves in this one after

the body's death—which are free from such "materiality"? This question must be answered by those who can adduce—experience. But we can aver that such more harmonious levels may well obtain in an *imaginal* World-System, the portion of which empirically known by us is, perhaps, a fragment only of its total extent. We shall have more to say about this vista of plastic surrounds in another volume. Suffice it now to bear in mind these essential points: (1) That the kind of order now familiar to us is not necessarily the type of all forms of world-order. In the house of Imagination are many mansions, some of which must be unspeakably superior to this. (2) That most sentients, of merely human grades, are hardly fit for anything better than what they confront here and now. The immanent purpose builds not wholly amiss.

Our business is to discuss a frame for the canvas of reality—not to fill in the canvas.

§ 4. Our purpose in this volume is to suggest a *frame* for the canvas upon which all the details of experience can be set. We are not endeavouring to show how that canvas must be occupied by any and every fact of which an encyclopædic science might treat. That task is altogether beyond our powers. Those who expect a complete rethinking of physics, chemistry, biology, or what not, will be sent away, if not exactly empty, at least unsatisfied. And if their dissatisfaction moves them to paint the canvas, so much the better for all concerned. They have ample room, on the imaginal hypothesis, for their labours; we have not denied them, as have many idealists, the reality of cosmic space and of the motions that therein are. But, being realists as well as idealists, we desire a concrete attitude toward the natural order, an attitude

which shall allot *quality* its full due. The ghost-Nature of mechanistic science must be left behind.

Need of a concrete attitude toward the natural order. Case of the undulatory theory of light.

An excellent case in point would be the rethinking, on our lines, of the undulatory theory of light. "A true explanation," wrote Clifford (*Lectures and Essays*, p. 169) "describes the previous unknown in terms of the known; thus light is described as a vibration, and such properties of light as are also properties of vibrating are thereby explained." Note the words "such properties," for these, in truth, are the only properties which the theory, to a limited extent, serves to explain. The other "properties" of light as known sensibly by you, me, and the painter are not explained by it, but, in the main, ignored: for purposes quite justified by the needs of practice. Now an *adequate* treatment of light as it is known by us and *as it exists also in the Cosmic Imagining*—in Nature as a poem in concrete space—requires much more than a study of motions, the mere accompaniments, as they are, of the other "properties." It will make light the primary interest and regard the motions of the natural agents as among the normal phenomena attending penetrations. Light was in the "Initial Situation," an aspect of the harmonious World-Idea as it existed changelessly in the C.I. ere the time-process began. A similar contention would apply to the case of the Imaginal, sound.[1]

The mechanistic world is destroyed for us: that must be the dominant thought in any reconstruction on the lines of the imaginal hypothesis. The

[1] *Cf.* Part III. Chap. III., "The Ground of Evolution," p. 442.

hypothesis itself provides ample room for anything that comes to hand.

The "unseen" complementary levels of this World-System. When silence is golden!

§ 5. Simultaneously with the evolution of the physical order must go an evolution of the "unseen" complementary levels of this World-System. Knowing little, at first hand, about these levels—and a little knowledge is proverbially dangerous—I have to ignore them. It is probable that few of the historical mystics who have sought to enlighten science in this matter were in better case than we are; and, indeed, the literature enshrining their efforts is hardly such as to inspire perfect trust. Mystics have brought surprisingly poor "solutions" to general metaphysics; many, whose supposed perceptions have been respected, showing no corresponding eminence in the domain of thought; a fact which detracts, of course, from the worth of the alleged perceptions themselves. The perfect imaginal intuition is at once perception and thought and even emotion. And the thought in it could surely be offered to us as an intellectual system of philosophy. Often nowadays the Magus is a journalist who pens "Society Notes" about other-world circles of supermen and spooks. It is easy to pen, and as easy to invent, these stories, but difficult to tender "solutions" such as thought, in the form of metaphysics, must require. Hence the Magus, well-informed about the interior of Neptune or the vices of denizens of the astral plane, has not thrown light on such trifles as Causation or the problem of the Infinite.

But if we rightly regard alleged other-world-lore with suspicion, we do well to be on the alert for all

genuine instalments of it. Our practical interests counsel this much. Meanwhile let us not try to walk in gardens which are closed to us. *Cultivons notre jardin*, . . . and all will be added in its season.

§ 6. We have spoken of "attractions" as tendencies toward overriding the primitive divisions in Nature. There is a movement from "self-externality" to "self-internality," as Hegel called it. Here lies the well-spring of Herbert Spencer's famous "integration": a process which, in his system, is discussed as if it were a mechanistic result of blind "energies." The lowest sub-chemical attraction-complexes herald the creation of complexes of such complexes; and these, again, that of others, and thus the road to physical, chemical, and organic evolution is laid. Spencer, dealing with the integrating or concentrating process in his mechanistic symbolism, observes :— Spencer's famous "integration" process re-thought.

"Alike during the evolution of a solar system, of a planet, of an organism, there is progressive aggregation of the entire mass. This may be shown by the increasing density of the matter already contained in it, or by the drawing into it of matter that was before separate, or by both . . . at the same time the parts into which the mass had divided severally consolidate in like manner. . . . Always more or less of local integration accompanies the general integration." [1]

The process, which is attended by "differentiations" more and more definite, varied, and complex, is not mechanical, but one stateable in

[1] *First Principles*, p. 327.

terms of "psychics." Re-reading his account in our own way, we can accept "integration." Spencer contrasts evolution with dissolution in which disintegration occurs. Both belong to that larger creative process which may be called evolutionary in our present use of the term. Dissolutions on the minor scale largely subserve the process itself. The dissolution of the potato furthers the evolution of the pig.

Spencer's processes of evolution and dissolution cannot endure for ever.

Spencer supposes that Nature's "redistribution" of "matter" and "motion" go on for ever in cycles of evolution and dissolution. But no Nature, no World-System, indeed, which comprises Nature, endures as a *process* for ever. There is nothing, we saw, in the causal dynamic which implies a necessity for endless changing: there is no urge or drive that compels content-alteration, once that a harmony is attained.[1] A static result is the final outcome of the original Creative Appulse. The composition of the poem of creation is not prolonged indefinitely to no profit; it closes when the imaginal artistry has triumphed, when the perfection, which is its end, is consummated.

For the rest, the story of inorganic evolution, now being pieced together by the divided labours of men of science, is presented usually in the form of a mechanistic symbolism which believers in a psychical Universe must reinterpret, with such clues as are available, for themselves. It exists already in such wealth of detail that no one man can hope to master it. The day, in fact, is dawning when the

[1] Part III. Chap. IV. "There is nothing in the causal dynamic which compels endless changing," p. 471.

tale of creation will have to be written always by groups of inquirers working under some common inspiration and leadership. We have suggested experimentally the broad lines on which this tale could be pieced together, and we have contributed, therefore, to the effort all that metaphysics (which is concerned not with details, but with the general character and connective tissue of reality) can be expected to provide. We ourselves have to take over scientific data and generalisations with gratitude — never dictating to investigators who are masters in their own domains—and endeavour to "integrate" them with such modifications as are needful when practical, rather than theoretical, interests seem to have had weight in determining their forms. We shall thus hold fast to the true, while abandoning symbolism, mechanistic or other, which is fashioned to the call of practical demands.

Organic Evolution

§ 7. There remain the problems of organic evolution, touching which certain suggestions may prove useful. It is clear at the outset that, if our main hypotheses are valid, a mechanistic biology has become absurd. We need not fear foes armed with the weapons of Hallstadt or La Tène ; we need not rediscuss outworn categories, however useful these have been in the past. Nature is aglow with sentient life; evolution is an affair always of "psychics." This belief must permeate any conclusions which we can form about the genesis and lives of organisms ordinarily so-called.

A mechanistic biology absurd.

The *species* of the Periodic Table of "elements,"

or simpler chemical-complexes, themselves embody immanent purpose, and likewise the complexes, "inorganic" and organic, which *succeed* these in the time-order. But we cannot expect to *derive* the last from the first, as was made clear before. A creative stage always adds something to what precedes it. Again, we cannot derive the biologists' "organisms" solely from the teleological working of the lower natural agents. To account for the realisation of ends in such structures will require a more comprehensive outlook than this. There are major as well as minor sentients interrelated in the World-System.

Succession and derivation.

Living structures are not peculiar to the domain of biology. They exist in the "inorganic" kingdoms in every quarter. Nowhere is to be found a mere machine, the parts of which are determined solely by a dynamic *extraneous to themselves*. The lowest natural agent is a psychical power which maintains itself actively in conditions neutral, friendly, or inimical to it. But the *types* of living organisms, recognised by official biology, are, for all that, novel forms of creation with novel properties of assimilation, reproduction, etc. We do not require to suppose anywhere a "Vital Force" which seems an otiose conception, a sound bringing no thought with it. But we require to allow freely for innumerable sentient activities akin to the sentient Cosmic Imagining in whose lap lie the worlds. And these may include sentients far superior to ourselves. It is well to repeat Bradley's warning that "every fragment of visible Nature might, so far as is known, serve as part in some organism unlike our bodies," and that "we can set no bounds to the existence or

Biologists' types of living organisms.

powers of sentient beings." It is well, I say, since the problem of design in connection with organic structures, ordinarily so-called, may be far more complicated than is often supposed, and may at times incline us to suspect the agency of multiple superhuman powers. At any rate, the mere invoking of minor purposive natural agents or of a solitary God, as on familiar theological lines, will not provide us with solutions that are adequate to every riddle.

Many different sorts of sentients may be concerned with design.

Biology, then, as ordinarily taught, is concerned not with the origin of life, but with that of a particular stage of life. No stages in the evolution of Nature are divided utterly. In the heart of the "inorganic" there is a quasi-purposive varying from psychical unrest toward rest or harmony. And "inorganic" things may take on, in remarkable ways, the forms of "organic" structures, and show even "lifelike" movements such as these latter display.[1] Dating, again, from Wohler's synthesis of urea in 1828, many "compounds," once thought to originate only in "organic" structures, have been put together by chemists. Considerations like these indicate that "inorganic" things and the biologists' organisms are not parted by any abyss. On the other hand, we are ignorant as to the steps by which (biologists') "living substance" was born and cherished in its probable cradle of water.[2] The

The stages of life, "inorganic" and organic, are not parted by an abyss.

[1] The "protagon" movements (referred to changes in surface tension) can be cited.

[2] There is Pflüger's theory to the effect that the cyanogen radical (CN) was a step towards the proteid "molecule," and that the early history of the transition began in the forming of cyanogen and other compounds when the earth was still

True; but we have to take note of another great creative stroke.

conditions of its origin belonged, perhaps, to a past such as no human guessing can recall. The origination itself is one of the great creative strokes by which the Cosmic Imagining *adds* wealth to reality, and by which it secures a field for the formation of innumerable novel habits or uniformities of Nature. The first (biologists') "living substance," which may have been subcellular and very labile, was surely very different from the mere crystal. And later, with the evolution of cellular and multicellular organisms, the differences become accentuated. Conservation and creation concur as everywhere in the time-process. The organism conserves itself by assimilating material, bends the lower chemical and physical habits or laws of Nature to its uses, adjusts itself, repairs itself, protects itself, and reproduces itself, showing a unity of behaviour that repeats, on a higher level and in a new form, the unity of the primitive natural agent or Nuclear. The crystal grows, by attracting material chemically the same as itself, in layers superposed externally on a core. There are quasi-purposive factors involved in the activities of the minor psychical existents which it comprises; but, assuredly, it is an instance of a whole determined by its parts. It is what it is because these psychical existents behave as they do. There is no other unity of control than the result to which these existents conspire.

With regard to the bending of physical and

extremely hot; the first chemical compounds resulting in living substance taking place in the primeval lakes or seas due to the precipitation of water. This is, perhaps, the best speculative suggestion yet available. But it is mere guessing.

chemical laws to the uses of the organism, it is worth noting that the chemist, in analysing the body into this and that, always leaves the original living organism behind.[1] And, again, his claim to have effected syntheses of organic products does not mean that he has copied the processes by which these syntheses are produced in the organism, unhelped as this is by the high temperatures, special re-agents, etc., of which its "imitators" make use. The organism still has its secrets.

The invention of protoplasm—was it the first experiment of the kind?

It is remarkable that a planet, inhospitable for ages, with surface waters still tepid after precipitation on to its hot rocks, should at last have tolerated or rather mothered a soft, jelly-like stuff exposed to endless perils; the colloidal "living substance" of the biologists. But a stuff of this character, freely permeable by water, oxygen, etc., sensitive to its surroundings, unstable, and able to support innumerable internal changes, was required for a new venture. A plastic basis was wanted for the evolution of widely different organisms, some of which were to be the seats of rich, fecund lives. What a starting-point—this soft, "undifferentiated" substance floating about in the drift of tepid seas! It made use of members of four essential species of chemical natural agents (C, H, O, N), and some others of less importance; few, perhaps, at the

[1] "The chemist," observes Hegel, "places a piece of flesh in his retort, tortures it in many ways, and then informs us that it consists of nitrogen, carbon, hydrogen, etc. True; but these abstract matters have ceased to be flesh. The same defect occurs in the reasoning of an empirical psychologist when he divides an action into the various aspects which it presents and then sticks to these aspects in their separation."—Wallace, *Logic of Hegel*, p. 316.

outset, but broken withal to useful service. Was this invention of protoplasm the first experiment of its sort or the last happy stroke in a list of failures? It must not be assumed that imagination, improvising in the youth of this planet, achieved all its great successes at a stroke. The chronicles of later organic evolution have always comprised failures; and Natural Selection keeps watch and ward over experiments such as "variations" illustrate. In a world shot with chance and burgeoning in every quarter into the unforeseen —a world in a System, from which its pristine harmony has fled—procedure by trial and error must have a place. While we are unable to answer the question just raised, we may dwell on it awhile to some profit.

On Definitions of Life.

With the advent of the higher multicellular organisms, the new life-theatre becomes full of wonders, to which the categories of Mechanism simply do not apply.[1] It is on these levels that the careless definition of Life is best tested; the teleologic unity of behaviour which we miss in the crystal (a whole "run" by its parts) stands out clearly. For this reason Spencer's definition of Life —"a set of changes, simultaneous and successive, combined to a definite result, and in correspondence with external circumstances," or, in a terse form, "Life is the continual adjustment of internal to external relations"—is felt to be unsatisfactory. This "adjustment" is a fact, but to notice it is not

[1] *Cf.* the chapters on "The inadequacy of Mechanical Principles in Physiology" (pp. 235–245), and on "The inadequacy of Mechanical Principles to Explain Organic Evolution" (pp. 246–257) in Professor Macdougall's *Body and Mind.*

enough; the "moulding principle" or teleologic unity at the back of it must be mentioned. Spencer's definition misses too much; he is obsessed here as always by the mechanical monism which vitiates his work. There is a definition, which I find in my notes attributed to Kant, stating that "Life means the capacity of a substance to set itself in action by virtue of an internal principle." Excellent when you are clear as to what you mean by "principle." Such a definition, as is fitting, will carry us far beyond the mere biologists' domain. It will apply, for instance, to the *psychical activity* whereby even the minor natural agent, from Nuclear upward, changes "in correspondence with external circumstances" and maintains itself, amid furthering and thwarting agents, *contra mundum*. We have to regard biologists' organisms as merely types of life-structures, examples of which are indefinitely more numerous than ordinary science concedes.

Spencer. Kant.

The self-conserving activity of the lowest psychical agents is, as we saw in treating of the primeval conflict, aggressive—is an encroaching activity which seeks to dominate agents which are encountered by it and which press upon and limit it. *Assimilation*, as noted in the biological field, is a novel form of this aggression shown in the bending of the agents assimilated to the uses of the organising structure. *Reproduction*, rendered possible by growth-assimilations, tends to perpetuate and extend conquest. Were it not checked by unassimilable or destructive agents, it would become excessive for the region where it occurs. There is, accordingly, a certain "divinity of measure" enforced ruthlessly at need by conflict, which secures the

Assimilation. Reproduction.

balance of species and sets bounds to the multiplication of any sort of biological organism, however pushful it may be.

Plants and Animals

Are plants sentient agents as well as the seats of minor sentient agents?

§ 8. Are plants more than imaginal complexes in Nature—are they distinct sentient agents in their own right as well as content-areas [1] in which innumerable very lowly sentient agents play their parts? Bergson thinks that the plant is unconscious. This, on our lines, is to say that the plant is *content* for the consciousness of the C.I., but not content which is, also, aware of itself. The plant, even if you regard it, with Bergson, as unconscious, cannot be a merely "material" thing; this is an alternative long ago rejected by us as absurd. It is a thought in the order of imaginal Nature. Is this thought partially and dimly aware of the happenings within it? That is what we are asking. It is clear that a thought can be present to a conscious experience without being a conscious experient itself. Only in this sense can we tolerate the inquiry as to whether the plant is sentient or not.

Some plants, perhaps, and, it may be, many.

Bergson denies the sentiency, but in no convincing way. "The membrane of cellulose in which the protoplasm wraps itself up not only prevents the simplest vegetable organism from moving, but screens it, also, in some measure, from those outer stimuli which act on the sensibility of the animal as irritants and prevent it from going to sleep." [2]

[1] *Cf.* Chap. VI., on "areas of sentiency."

[2] *Creative Evolution*, English translation, p. 117.

But, while plants, generally speaking, are not made for movements from place to place, they display, at any rate, the remarkable "plant-movements" of detail investigated by Charles Darwin. These movements and other facts, labelled phenomena of "irritability" and "contractility," have prompted many to regard plants as sentient. "Plants," urges the acute Carveth Read, "possess what may be most naturally called sense-organs in relation to gravitation, contact, light and perhaps other stimuli; these organs seem to have developed like those of animals from the epithelium; and their stimulation excites reflexes which, according to Francis Darwin (*Nature*, Nov. 1901), are of the same type in animals by association and therefore allied to habit and memory." [1] Not being plants, we have to infer whether these organisms are or are not the seats of distinct sentients. We have to shape our guessing according to their *behaviour*. In the cases of many of them the behaviour seems such as to justify the inference that they are sentients. It is important, however, to bear in mind that behaviour, which we do not or cannot notice and interpret, may be allied with sentient life. We cannot be sure that we are overlooking nothing when we set down the sorts of behaviour on which we sit in judgment.[2]

To regard the lowest animals as sentients is every whit as speculative as the "ensouling" of plants. And often our perplexities are increased by the riddle as to whether the sentient to be inferred is one or

[1] *Metaphysics of Nature*, p. 201.

[2] This is the difficulty which prevents us from detecting certain sorts of sentients readily in "inorganic" Nature as well.

many! Let us leave this domain to the psychologists and judges of "behaviour."

Living stuff, in taming chemical agents, does so at the price of instability and unrest: protoplasm, as Huxley said, has to be dying in order that it may live. Assimilation or the taming of fresh agents to replace those lost, as well as to secure new growth, is indispensable. This ingestion and domination take different forms in the plant and animal. The conservative side of reality is more conspicuous in the plant. The plant is, in the main, "anabolic," building up chemical complexes which, as phrases go, retard the degradation of "Energy" by "locking it up" awhile in a "potential" form. We have rejected this Energy-symbolism as of worth only for practice. What occurs is no imprisonment of an entity "Energy," but the bringing together of sentient existents or agents *in such fashion that their psychical relations are provisionally stable.* The "liberation of Energy," when the complex organic stuffs split into simpler, is just these psychical agents themselves breaking away into new relations. They cannot, however, break away thus indefinitely, because, sooner or later, they reach a more or less harmonious situation or "state of equilibrium" from which there is no motive, as we should say, to shift. This sequel would not suit us if we wanted to secure "work" from the natural agents, and, consequently, we affirm, not quite without malevolence, that "Energy" has been "*degraded*" into being unavailable for our uses.

"Energy"-symbolism and organic Nature.

If a number of workers became *Bhikkhus* of the

Buddhist type, enjoying the restful beatitude of saints, and were, consequently, lost to the factory, a capitalist might regard them as "degraded" into unavailable work-power or "Energy." This is comprehensible from his point of view, but we must surely consider the state of the *Bhikkhus* themselves?

The plant's work. The plant's work, then, can be phrased as "storage of Energy" in protein and starch stuffs, though it also "expends Energy," to an extent, in motion and heat. The animal organism belongs more to the creative changeful side of Nature; it stores, but, in the main, it "expends Energy," is eminently "catabolic," being the theatre of ceaseless oxidations, a breaker-down of complex stuffs into simpler with the accompanying "liberation of Energy." We can rethink this symbolism as indicated above. The natural psychical agents, which escape from their relations in complex stuffs, are themselves the "Energy" which is "liberated" and, perhaps, directed in the "catabolic" process. Within the domain of the higher animals the contrast between the conservative and the creative reappears in the striking "anabolism" of the human female as compared with the "catabolic" user of "Energy," the male. The superior creative initiative of the male in the spheres of abstract thought, art, industrial invention, and novel adventure generally is allied with a body which is built to squander its resources at need. This body gives normally such direction to its subordinate natural agents as suits the way in which the *chief* sentient, connected with it, has to live.

"Catabolism" in the animal organism.

Plant and animal are thus complementary aspects of the World-System as it divides its labour in the

sphere of organic evolution. The plant-body, which can build from what comes to it with the chemical agents, water, carbonic acid and ammoniacal salts, is, in the main, a storer of Energy, *i.e.* it relates psychical existents complexly, so that, in breaking away later from their complexes, they do things which can, also, subserve an overruling life. *Sic vos non vobis!* The animal-body, assimilating plants or the tissues of other animals or both, utilises these break-aways, and "degrades" Energy, as the phrase goes, therewith. It is a place of oxidation. And oxidation for the psychical existents concerned is a move toward a state of restful combination — toward a more or less harmonious situation which reduces the possibilities of further change. We see in this descent to the simpler compounds how the animal-body works. It realises its quasi-purposive life by letting the minor sentients follow, with a certain overruling direction, their bents, and its utilisation of them is limited by the limited number of obstacles which lie between their complex combinations and a state of relative rest. The stimuli, on which "Energy" is released, are all at bottom psychical, and every action of a natural agent is a varying toward harmony explicable in terms of psychics.

This seems a true way of looking at plant and animal, if we want to consider them as factors in the process symbolised as the redistribution of "Energy." But it is not, of course, adequate to their full interest as thought-structures on the storied canvas of creation. The invention in this domain is astounding, and some attempt will be made to deal with the topic in the following chapter.

CHAPTER VIII

THE EVOLUTION OF NATURE (*continued*)

"VARIATION"

§ 1. OUR conclusion, at the close of the last chapter, may be re-expressed thus. The rôle assigned to plants is not the storing of a mythical entity "Energy" which animals, after a preliminary re-storage of it, are to expend. Plants relate minor psychical existents or natural agents in such ways that their subsequent actions, on changing these relations, subserve also the actions of animal organisms. That is the basic *inventiveness* or ingenuity displayed. We have now to note that members of the plant and animal kingdoms, besides comprising minor lives, have careers of their own, and that astounding creative novelties characterise these. Each plant and animal organism is a complex content or thought in the imaginal structure of the World-System. How, then, have these organisms come to exist? If, as is now customary, you accept the view that Transformism, in some form or other, is true, that the "integrations and differentiations" of the tree of organic life are rooted in the archaic, "undifferentiated" life-stuff, of which we made mention, a very interesting problem confronts you. What were the main factors of

Transformism and the origin of plant and animal organisms.

this organic evolution or creation? I say "creation" advisedly, since the mere slowness of the alleged transformations does not forbid our use of the term.[1] The point is that creation adds somewhat to the stage at which it occurs, and a slow addition, according to our estimates of time, is just as significant as a rapid. If, then, organisms have varied and varied through millions of years till the accumulated variations in different directions have yielded species as we find them to-day, what is the character of the creative process at work?

We are at the threshold of the riddle of "variation," and, though it is not our special business to discuss biology, we ought to suggest, perhaps, how our main hypotheses may prove fruitful in this field.

Variation and Natural Selection.

Let us approach this riddle by considering first the factor of organic evolution which is called Natural Selection. Darwin and A. R. Wallace share the honour of having brought this old-world suggestion into the forefront of biological theory concerned with the origin of organic kinds or species. Some of Darwin's successors have emphasised the importance of Natural Selection even more than he did. Their work has made appeal to every one who was tired of theological tradition. It has prepared the way for a frank discussion of a very large problem, the full extent of which is seldom

[1] The evolution of horses and zebras out of the Hyracotherium of the Tertiary beds seems to us long drawn out; to some superhumans it may seem very rapid. We are immersed in the detail of the world-process and therefore feel the process long.

realised even to-day. But it contains no promise of satisfying our demands for explanation. Mechanists have greatly overrated its power to solve difficulties which menace their general philosophical position.

Variations which arise little by little, and variations which appear suddenly. (Mutations.)

Natural Selection is said by Darwin to "give rise by graduated steps to natural races." This form of the hypothesis supposes that variations appear little by little. A second form supposes that variations may appear suddenly; several new characters, indeed, arising together at intervals. Species, on this view, live through alternating periods of relative stability and transformation. But the problem of the variations is common to both forms of the hypothesis.

The problem of the variations

Natural Selection is only possible because organisms vary. It eliminates those organisms which are "unfit" for the conditions of the contemporary struggle (which may make for the survival of the parasite to the prejudice of what we call superior forms of life). It fixes useful variations which come to it and which it does not make. It is impotent, if no such variations arise, to "evolve" a new species. The variations again, as Darwin himself pointed out, are due in a small degree only to the environment, but in a high degree to the "nature of" the organisms themselves. This consideration is capital. It shifts the burden of evolution on to the organisms which are being evolved! And we are moved, therefore, to ask why the organisms vary, in the remarkable ways proper to them, at all. The riddle of variation becomes acute and is found to be the essential one with which we have to grapple.

Let us hear Darwin. "The nature of the conditions is of subordinate importance in comparison with the nature of the organism in determining each particular form of variation—perhaps of not more importance than the nature of the spark, by which a mass of combustible matter is ignited, has in determining the nature of the flames." [1]

Note now that existing organisms are descendants of organisms that were *not* eliminated in the struggle —till after reproduction had taken place. They are the results of variations due chiefly, as Darwin avers, to "the natures of" their ancestral organisms and themselves. A body very long ago varied from the rest of the "undifferentiated" life-stuff; other bodies, which prolonged it, kept on varying, and finally, after untold millions of years, the result is yonder beech. Natural Selection has *eliminated* bodies in all quarters, but clearly it has neither eliminated nor produced the variations which have issued in this particular beech. Some have called these variations "fortuitous," but it is by no means clear what they mean. The World-System comprises, no doubt, chance-happenings, but these latter are incidental to its main character. And, seeing that creative organic evolution is fed by the variations, we shall have to form some conception of how these come to pass. "Fortuitous" is a term which believers in an *Imaginal* Ground have to interpret in their own way.

The variations, rather than Natural Selection, have produced this particular beech.

The environment, it is worth observing, cannot be excluded from the range of purpose; it is what

[1] On the "Causes of Variability," *Origin of Species*, 6th ed., p. 8.

it is because the World-System displays here too its immanent purpose. Not forgetting this truth, let us go on to consider the beech from another point of view. Let us suppose a spectator capable of looking back at the entire organic ancestry of the beech and seizing this long story as a whole. He would perceive a bit of primitive life-stuff altering, with interminable assimilations, reproductions and transmutations, from one form into another, like those unstable images of fancy which we cannot hold unchanged before the mind. And, on Darwin's admission, this magical varying is the work of the life-form, flaming as its "nature" dictates, in response to the "spark" which merely ignites. Would not our spectator trace the real mystery of the flaming back to an "internal activity" or principle such as, *e.g.*, was contemplated in Kant's definition of life? The body itself is acting thus wondrously, or, at any rate, is the channel through which some creative power, not derived from the body's surroundings, is at work. Its changes resemble a long series of experiments, such as might be *imagined* by an inventor, which are thrown off lavishly to be tried and passed or condemned by Natural Selection. This thought will not strike us, so long as we are obsessed by the slowness with which variations occur according to *our* standards of time. It will occur to the superhuman spectator at once.

How a superhuman spectator would regard variations.

Mechanistic writers, who make Natural Selection operate on *blind* variations, gradually arising or of sudden appearance ("mutations"), wallow in difficulties, as Von Hartmann, Bergson, and many others have shown. We need not dwell on these diffi-

The blind variations of the mechanist.

culties ; the mechanistic gospel has been left behind. But observe the procedure which has made some of its explanations tolerable. If you could have in view together all the variations in organic Nature of all kinds, past and present, you would hardly find the epithet " blind " to your taste. But when mechanists deal piece-meal with organic structures and functions, now with these teeth, now with those stings, habits, or hoofs, the demand on your patience is not too great. Anything might happen in a very long time, you are apt to think, severe as the calls on blindly conspiring and co-ordinated variations really are. You are inclined to say— " yes, natural selection may have sufficed in *this* case." Then another case is presented, and then another, and you end, perhaps, by allowing that a process which is devoid of thought is none the less able to work wonders and even to evolve the epiphenomenon thought itself.

Eimer and " outer conditions " that modify directly the organism.

§ 2. The view that " outer conditions " directly influence the internal conditions of the organism, as stated by Eimer (in order to get rid of fortuitous or " accidental " variations thrown off by the organism) makes the organism too passive. It illustrates that old view of causation which worked with the notions of agent and something acted upon. Such causal situations never occur in Nature, if our preceding discussions have been sound. The sun acts differently, as we say, on different things, because the things " acted on " are active as well. In the case of the organism this *active response* is even more striking than it is in the case of a primitive natural agent or complex of such agents. All causation, including organic response to " outer

conditions," comprises creation; and it is precisely this creative response which is interesting us now. Eimer is dealt with very effectively by Bergson.

Bergson on the two meanings of "adaptation."

Bergson has warned us of the risk of confusing two senses of a treacherous word "adaptation," very familiar to students of biological theory. It means, he says, at times passivity during modification by the environment, at times "an effort of the organism to build up a machine capable of turning external circumstances to the best possible account." There is, we maintain, no case of mere passivity discoverable. Even sealing-wax altered by a seal responds differently to pressure than a diamond; this is because the innumerable natural agents concerned are active in their particular ways. But it does not respond, of course, with that unity of constructive "effort" which marks the history of the organism responding to its surroundings. The organism's response may be preponderantly *conservative* or *creative*, but it is always a genuine response and not a case of passive alteration. Bergson's caution is important. For believers in passive alteration are many. And the convenience for them of profiting by the two senses of "adaptation," when they are in difficulties, is not to be denied.

The organism, however, never builds up Bergson's "machine." It relates minor *sentient* agents into novel complexes, taking advantage of their habits or "laws" of action to secure such stable arrangements as it requires. There are no "machines" in the sense that there are systems

of parts which move *solely* in virtue of actions extraneous to themselves.

Bergson and the evolution of the eye.

§ 3. The problem of the eye tests evolutionary hypotheses severely. Bergson points out, with great effect, that vertebrate and pecten diverged from their parent stem long before the advent of eyes. Nevertheless these very complex organs, appearing on two entirely different lines of evolution, present striking resemblances. The pecten's eye, too, has a retina, cornea, and cellular lens. He shows that mechanistic, neo-Darwinian, neo-Lamarckian, and like hypotheses cannot deal with the problem save by asking us to believe in intolerably complex, nay, fantastic, coincidences. The eye, he says, "solves a problem"; it is not the result of a slow, one-sided alteration of the living body by light. And the solution is achieved in independent quarters. Bergson notes in this connection how sexuality in the higher animals and plants shows many common features despite the independent lines of evolution of the species concerned. He concludes that the source of the creative changing *in definite directions* lies in "effort" far deeper than the Lamarckian individual effort; "an effort common to most representatives of the same species, inherent in the genus they bear rather than in their substance alone, an effort thereby assured of being passed on to their descendants." The ground of this effort is the *Élan Vital*, which is a "simple" activity beyond, but also within, the members of the evolving species.

Bergson's *Élan Vital*.

"The neo-Darwinians are probably right . . . when they teach that the essential causes of varia-

tion are the differences in the germ borne by the individual and not the experiences or behaviour of the individual in the course of his career. Where we fail to follow these biologists, is in regarding the differences in the germ as purely accidental and individual. We cannot help believing that these differences are the development of an impulsion which passes from germ to germ across the individuals; that they are therefore not pure accidents, and that they might well appear at the same time, in the same form, in all the representatives of the same species, or at least in a certain number of them. Already, in fact, the theory of mutations is modifying Darwinism profoundly on this point." [1] Bergson thinks that the "spontaneity of life is manifested by a continual creation of new forms succeeding others." The indetermination is not complete. "It must leave a certain part to determination. An organ like the eye, for example, must have been formed by just such a continued changing in a definite direction."

But Bergson's Vital *Impulse* seems to us still vague—comparable, indeed, in this respect with the "Life-Force" of Bernard Shaw. The thought here does not meet intimately the phenomena to be explained. And always over against the "spontaneity" of life stands the spectre of "inert Matter" which we rejected before, and which has no justifiable place in a psychical universe.[2]

§ 4. What, then, is this "spontaneity of life"?— what is the thought that really meets the phenomena? **What the "spontaneity" of life really is.**

[1] *Creative Evolution*, English translation, pp. 90–1.

[2] *Cf.* Chap. IV. § 1, also pp. 159-63, and elsewhere.

The answer is on our lips as we ask. The "spontaneity" in question is no other than creative *imaginal* activity, the range of which extends as well through organic as inorganic Nature. This is the only creative power in the Universe. It is creative, as we saw, in the dynamic of so-called "inert Matter," and it furnishes also the *experimental inventions*, on which Natural Selection feeds, in the sphere of the biologists' organisms. This general statement may be made confidently. Let us see now if we can make it more precise.

Determinism and indeterminism in the World-System.

Creation began with the "corruption of eternity,"[1] the birth of time-succession, the altering of the Initial Situation or World-Idea whence inorganic evolution took its rise. It concurs, we held, with conservation; its imaginal *novelties* happen along with the *maintenance* or conservation of more or less determinate directions of changing imposed by its source; the character of the original World-Idea which is being modified and enriched. The arising of innumerable new contents and finite sentients marks the artistry of the divine romance. But all this new wealth is won and accumulated on lines which, while elastic, are nevertheless decreed from the first. Even so the dramatist develops his play; he decides on its character and compass at the outset, but within these limits he improvises creatively as he goes. The greater features of a World-System are inherited, so to speak, from its initial idea, but "surprises," "inventions," "chance-happenings" of all sorts are to be noted throughout its career. Bergson's

[1] Dr Schiller's phrase. But there is a compensatory side to the "corruption."

" definite direction " of changing, that of the evolution of the eye, was inevitable from the first. Light was an original aspect of the content of the World-Idea.[1] And since such content is to become manifest to finite sentients, human, animal, etc., there arises sooner or later Bergson's " effort " which *constructs* organs contributory to this end from the level of the pigment-spot of the infusorian upward. But though the evolution of sight was inevitable, the different sorts of light-organs evolved comprise novelties untold. Similarly the evolution of the plant was inevitable, but this direction of change, determined in advance and *conserved* stably in the time-process, is marked withal by *creative* results altogether past counting.

Definite directions of changing.

There must have obtained, then, what the botanist Strasburger calls " original innate capacities " of (the biologist's) living substance, " not dependent on selection." These, again, concur with creative " effort " or constructive adaptation to environment. " *Promise and potentiality,*" *asserted of protoplasm in this fashion, could not be repudiated as verbiage.* We ourselves know what " potentiality " belongs to imagining. An imaginal " potentiality " in Nature resembles my own imagined " potential " actions which I entertain as schemes, and which may or may not take shape in further fact.

" Promise and potentiality " no longer verbiage.

It is important to allow for the " corruption of eternity " into conflicts of " loose " agents and chance-happenings foreign to the initial World-Idea. Thereby we are enabled to understand much

[1] An Imaginal, as we called it. *Cf.* Chap. III. "The Imaginals," p. 442, also pp. 392-8.

Why the story of creation contains grim pages. Imagining has run amok.

which startles and offends us in the designful story of creation. There are many inventions, not decreed by the character of the "uncorrupted" World-Idea, but arising as novelties in that Heraclcitan war of life-forms *in which imagining runs amok.* Each species solves its problems more or less efficiently or it would not endure. Its main effort in its struggles is to win through. Hence we cannot expect to be always noting variations which satisfy human æsthetic or ethical standards, and illustrate, as old-world apologists often tried to make out, the beneficence of an all-holy Deity! Many variations of organism and instinct are repulsive to the last degree. They are not inventions of a *superior* sentient being, certainly not of one worth the title of God; they belong to a lowly stratum of the time-process in which the primeval sundering or opposition of agents is seen at its worst. Such variations, however, are part of the inevitable price of the "corruption of eternity." For the "corruption," in abolishing the initial harmony of the World-Idea, liberates agents which retain the imaginal initiative of their source. And imagining in the time-process, in which they are "loose," seems to have run in many quarters, as we say, literally amok.

There are conflicts at the birth of change and throughout inorganic Nature; there are conflicts, as biologists have suspected, in the chromatin of germ-cells, conflicts between tissue-cells,[1] conflicts

[1] "If every tissue of the organism owes its maintenance to success in a general contest for nutriment, etc., do we not find at least a probability that it owes its origin as a visible cell to a similar success in a similarly general contest among the invisible elements from which tissue-cells are developed?"—Romanes, *Exam. of Weismannism*, p. 139.

between phagocytes and still lowlier foes, interminable conflicts, indeed, on like levels and on levels far above these. Such oppositions have to be "used," with an inventiveness and cunning beyond admiration, in the constructions that extend organic Nature. There is, assuredly, an overruling purposiveness of the total World-System, with its creative initiative, of which we must take account. But we must not overlook the truth that this larger process has to accept all the subordinate creative initiatives, and that, while bending them in its directions, it cannot entirely overcome them. Thus it has been suggested by Weismann that mere changes in the blood and other nutritive fluids may provoke the germ-plasm to new variations. The germ-plasm, as we should say, responds creatively *ad hoc*; and the response introduces a novel factor into the larger World-System. The initiative is not of cosmic ordaining, but local.

The World-System and "local" creative initiatives.

These local initiatives, more or less free within the stream of change, are curiously illustrated by cases of excessive growth, such as that of the antlers of the extinct Irish elk. In this instance the organism did not continue to "solve its problem" satisfactorily, for the growth must have burdened the beast, and, perhaps, entailed its extinction. The direction of change, as originally set up, was doubtless beneficial, but the varying, once started, could not be stopped and ran into hurtful excess. There is a conservative obstinacy indicated—a *habit* of organic modification—which could not be derived from any overruling sane agency of cosmic range. The growth is "irrational," in fact, in the sense that it defeats the end of furthering the elk's

A local initiative running into excess.

living which it subserved at first. Instincts, as well as structures, can run into excess in this way. The sexual and nutritive, for instance.

"Just as an intact organism from Amœba to Elephant tries experiments, so it may be that the implicit organism of the germ-cell tries experiments—which we call variation," write two distinguished biologists.[1] This is a notable move toward that initiative of which we spoke. Observe that, having produced changes in one direction, creative initiative frequently "uses" them later in another, as the furtherance of living requires. Thus the electric organs of certain eels are altered muscle; of the Nile mudfish altered glands of the skin. Altered sebaceous glands yield a milk-gland; altered abdominal limbs the spiders' spinnerets; the altered ovipositor of worker-bees and queen-bee a sting, and so on. The extraordinary inventiveness shown in such cases renders mechanistic biology, to those not obsessed by theory, dull reading. Consider the case of the modification of parts of jaw-structure into the "malleus" and "incus" device at the gate of the inner ear. Is it believable that variations, aiming at nothing, can get somehow piled on the top of one another so as to effect this modification, which is not produced, but merely favoured, by Natural Selection? The initial stage of the varying would have been useless just as in the cases of the origin of the milk-gland, or sting, or of the changing of serpents' teeth (with their implicated glands) into fangs. If, to remove this last objection, it is denied that these variations were long-drawn-out, since the new organs appeared

Creative initiative, having produced changes in one direction, may use them later in another.

[1] Professors Geddes and J. A. Thomson, in *Sex*, p. 94.

suddenly as " mutations," then we retort that such labelling is not explaining. We can all recall enough Latin to know that " mutare " means to change. And what we want to know is, not that a new organ is the result of changing, slow or sudden, but the manner in which the said changing came about. To say that a device, showing purposive co-ordination of the kind we call inventive, originated suddenly in mechanical Nature, is to send us empty away.

§ 5. The overruling creative initiative of the World-System has to accept lower initiatives and bend them, as far as may be, to its uses. The problem of design in organisms is complicated accordingly. It is more formidable yet when we consider that human sentients intervene in directing organic variation, and that many orders of sentients of many grades, above the human level, may also be concerned with the process. A. R. Wallace, Darwin's co-exploiter of Natural Selection, was in favour, I understand, of this last view—he was no friend of the mechanists, and realised how great is the field for *unperceived* higher agencies at work in Nature and History. As Bradley concedes freely, " we can set no bounds to the existence and powers of sentient beings." The imaginal hypothesis of creation may be defective, unless the intervention of such agents is taken into account and treated as at least probable. To parrot-cries about the " inconceivability " of superhuman " interferences " with Nature, I would oppose the following saying yet again. All Nature is psychical reality, all causal dynamic is a psychical dynamic. " Interferences " on the part of superior psychical agents would be of one tissue with the natural order itself.

On creative sentient beings above the human level.

Possible objections from the side of "Energetics" have been quashed in advance.

Exemplars.

The likelihood just stated moves us to moot a variant on the old belief in Exemplars which visible organic bodies were said to copy with more or less success. We have got rid of the time-honoured "essence" which exists "only for reflection." But the belief in concrete particular Imaginals, which may guide the *modifying* work of superior sentients, is not to be summarily dismissed (*cf.* pp. 396-8).

Case of the human body.

Consider the human body. It comprises innumerable local initiatives; it is certainly not a faithful copy of any imaginal archetype which preexisted in the World-Idea before the time-process began. It is in many respects, indeed, ugly and squalid, a passing phenomenon peculiar to this planet; a stage in a series of forms whose ancestry included the two-layered "digestive tube" of the cœlenterates, and which is rooted, so to speak, in the abyss. The human organism was evolved proximately, science tells us, out of a pithecoid species of mammal. The first mammals, again, appear to have been humble creatures, evolved out of reptiles in the very shadow of menacing saurians, and displaying no outward signs of the future in store for their descendants. But their kinds endured and grew in variety and complexity after the reptiles had ceased to rule. And some of them, getting on their hind-legs and having their fore-limbs freed for use as *arms*—a giant success—became users of tools, and with that the great victory over competitors was won. Flying creatures, lacking arms, were condemned to a humble future. They could dodge

many enemies, but they could not move things about sufficiently to control Nature. Their cranial capacities, also, were inelastic. But our ape-like predecessors, despite their delicate bodies and restricted powers of flight, won the day with arms and heads. And we, their descendants, dig up to-day the bones of the extinct *ursus spelœus*, sabre-fanged tiger and mammoth with the quiet pride of giant-killers who have "done their bit" right well.

Now these lowly first mammals, which would hardly attract notice were they caged in a "Zoo" to-day, may have been subjects of *experiments* on the part of superior sentients who co-operated in the work of creative evolution. Many mammalian forms may have been tried and found of no promise; very few, perhaps, lent themselves well to the initiative of the fostering overseers. It is at this stage that Exemplars may have furthered the task of betterment. But what would they have been? Not essence-abstractions, of course, existing "only for reflection," but imaginally constructed models; *particular* models imagined by the overseers *ad hoc*—to meet a passing situation—and to which the earth-forms were helped to approximate. Serious difficulties, noticed by A. R. Wallace and others, incidental to the ordinary teaching about the Descent of Man, might be eliminated by this view.

The defects, as well as the excellences, of the human body, are considerable. They, too, must be allowed for. All the problems presented have not been solved. This body is the theatre of mar-

vellous, but not perfect, inventions. It was evolved tentatively, and leaves much still to be desired.

Case of the horse.

Like experiments may have played a part in the history of animals which promised to be of use to future mankind—such experiments *influencing the germ-plasm*, and, when ratified by Natural Selection, permeating a Kind. The history of the horse, from the short-legged, five-toed quadruped of early Eocene times to the fine beast domesticated by man, may furnish an instance in point. According to Dr Matthew, recording the testimony of the American Tertiary beds, "twelve stages have been recognised from as many successive formations, showing the gradual evolution of the race into its modern form; and each stage is characteristic of its particular geological horizon." "Mutations," directed by the overseers, could be mooted. This is a suggestion and little more. Verification of it is beyond present human capacity. But, again, if there exist superior sentients, able to co-operate with planetary evolution, things of this sort are at least highly probable.

Purposive "mutations."

Several characters appearing simultaneously in many members of a species—genuine "mutations" other than what unaided Nature was to construct —are thus thinkable. "Mutations," transforming more or less suddenly *pithecanthropus alalus* and the horse-ancestors of the several geological formations, might have occurred. And the suspicion grows that a like very gradual modification may be in progress still, though means of tracing it to its source or sources must be lacking. This is one of those contentions which elude verification

and must be greeted with caution, but which, once harboured, return again and again to hold our interest.

§ 6. We will close this chapter by indicating a few quarters in which the bankruptcy of mechanistic biology can be descried easily by those roused from their dogmatic slumber. To dwell on these difficulties is to increase them.

Quarters in which the bankruptcy of mechanistic biology can be descried easily.

(1) Utilisation of the Carbon Radicals.

(1) The singular utilisation of the Carbon Radicals. These "atom"-groups, dominating "molecule"-characters, are bent to the uses of the quasi-purposive organism; the C. "atoms," which *are psychical agents or existents*, "combining" indefinitely among themselves, despite their similarity. There are provided thus C. "compounds" or *associations* of astonishing complexity and variety, serving as relatively stable cores of associations or integrations of yet more complex sorts. Since all chemical association includes transformation, the field secured for creation is correspondingly great.

In discussing the (biologists') organism, it is always necessary to recall that the "materials" of which, as the phrase goes, it is built up, are themselves alive. Organic evolution only complicates the pre-existing stage of life. When, therefore, we ask whether the organism is a vital whole, and not an aggregate, we ought to mean this. Is it *merely* a sum of *minor lives*? Or is it *also* a life which bends these minor lives to its uses?

Organic evolution only complicates life.

There is no call whatever for the supposition of a regulative "Vital Force." "Force" is a term

The phantom of "Vital Force."

that adds nothing to our concrete knowledge of anything. If it has a meaning in the present discussion, it stands for the "unknown cause" of vital change (just as in mechanics "Force" used frequently to stand for the "unknown cause" of motion). And such a meaning serves no purpose of ours here. For, if it be urged that this "unknown cause" is, at any rate, a *special* agency, then we reply (*a*) that an "unknown" special agency elucidates nothing, and (*b*) that the main fact before us in organic life is not anything "special" acting, and acted on by, other "special" agencies, but a *quasi-purposive* unity of system, in which all "special" agencies are subordinated and bent to an overruling end or ends.

A psychically-ordered whole is intelligible. Nothing else.

(2) The story of the Cell.

(2) The story of the Cell as told by E. B. Wilson and others; a veritable romance. Mechanists used to regard protoplasm and cells very much as a cook does jelly and bits of jelly, viz. as things so simple that one does not require to look closely at them. The story of the Cell has been a rare disillusionment for such folk. A distant city on a hill looks very simple. When you reach and explore it, your feeling of adequacy to its problem abates. So with the mechanists, confronted with the amazing complications of the Cell. As they look more closely, they get to realise that the Cell is like our city when actually reached—too complex for their convenience. But there is an additional consideration needing emphasis. The city, taken as a collection of buildings, can be perceived bit by bit with

patience. But the Cell's inmost secret cannot be learnt by those who perceive it *from the outside*, whatever stains and microscopes assist the explorer. For the "internal activity" here is precisely what escapes the mechanist's perceptions in the cases of the organisms with which you and I, as purposive agents, are allied. The quasi-purposive activity of the Cell cannot, of course, reveal itself even to glorified *eyes*. And this is why the mechanist, always seeking to explain complexes by simple parts which in their turn become revealed as complex and provoke further like explaining, is never able to rest. The quasi-purposive activity of the Cell has been overlooked. Until the mechanist takes account of it he must remain a wandering Jew, seeking in ever new and smaller parts the explanation which they *cannot* supply.

Why the Cell's inmost secret is missed.

(3) The zymogens and enzymes formed within cells which show how deftly great difficulties have been met by the inventiveness of creative imagining.

(3) The zymogens and enzymes.

(4) The evolution of eyes and ears. (The defects of these organs also are instructive ; they show that creative effort does not overcome all obstacles.)

(4) The evolution of eyes and ears.

(5) The evolution of the nervous system which in a manner "uses" all the rest of the organism.

(5) The evolution of the Nervous System.

(6) The properties of adrenalin as produced by the medulla of the supra-renal capsules. A mechanistic account of this substance, which dodges the need of regarding it as an *invention*, and an amazingly effective one, would be interesting—and quite impracticable. It is an "adaptation" in the sense of a genuinely constructive triumph of organism

(6) The special case of adrenalin.

meeting the call of circumstances, not bending to them. The stuff and its selective actions on different arterial muscular tissues at the same time, in order to the achieving of a complicated group of conspiring effects, could only be attributed to blind variations, fixed by Natural Selection, if men are ready to declare that blind variations work as wisely as those directed to ends. Blind variations, slowly accumulating, could not even begin the development of this selectively acting stuff. A blind "mutation" of this kind, suddenly appearing, would rival any miracle of the popular faiths. Again, "direct action" of the environment on the organism overlooks the response *of the organism*, which retorts with this great triumph.

(7) The kidneys and breathing phenomena.

(7) The kidneys and the phenomena of breathing. The astonishing delicacy and precision of the action in these quarters, in the circumstances to be met, outrun, as Dr J. S. Haldane has shown, mechanistic explanation.

(8) The evolution of sexual reproduction. Embryology.

(8) The evolution of sexual reproduction. Embryology.

These are large fields, and attention is directed to them mainly to suggest that they should be studied with the mechanists' difficulties in full view.[1] Sexual reproduction, which is heralded in

[1] Difficulties, *e.g.*, of the type advanced by Professor M'Kendrick when he writes thus of human foetal growth: "Tissue after tissue and organ after organ are formed not in a definite order as regards time but contemporaneously, *as if some kind of directive agency were at work. There are even examples of something like foreknowledge in the building up of the foetus.* Stores of glycogen are supplied for the nutrition of embryonic tissues. Iron is

the partial and temporary "conjugations" that take place even among amœbæ, with exchange of chromatin, is a tale of many devices and inventions. The sexual instinct, in its crudity and as metamorphosed by the very complex emotion, love, will be considered in the next volume.

Heredity. "Heredity," in the case of sexually reproduced organisms, will not dismay those who are following our hypotheses. It is the *conservative* side of the growing of the fertilised cell into the complete organism. We recall that the germ-plasm of each gamete is a psychical complex, with psychical dispositions, which tends to repeat a previous way of growing of germ-plasm with which it is continuous. This conservative side of germ-plasm makes literally for "*re*-production." But there can never be a faithful "*re*-production," as conservation always concurs, in the time-process, with creation, and nothing, even the germ-plasm (which in a purposive world has to be relatively stable), persists unaltered. The germ-plasm is changed by its own history as it responds creatively to ever novel intra- and extra-organic conditions—"tries experiments," as Geddes and Thomson have said.

The growth of the fertilised cell into the complete organism is, then, at once a *conservative re-imagining* process, in which contents tend to become what contents have become before, and a *creative imagining* in which novelty occurs.

collected in the body of the foetus, from the mother's blood, so that an abundance of this metal, all important for the development of red blood corpuscles, is found in the newly-born when in the new condition of existence it is nourished by milk which contains only a small supply of iron."

The fusion of two gametes is a situation of furtherance and thwarting, such as we have discussed before. The principle of creation is illustrated once more. The transformations created bring a certain harmony to antagonising tendencies which are confluent and yet incompatible. One group of tendencies, though modified, will dominate. Details are available by following up clues such as are now furnished by science.[1] We are indicating only very general features of relevance to metaphysics.

What starts the sexual reproductive process?

A theory of fertilisation can be mooted, *i.e.* a theory of *why* the union of sperm-cell and ovum starts the reproductive process. I leave it to those who have followed these last eight chapters, particularly Chapter IV., with interest. Fused activities conspire to a special "creative appulse."

(9) Instinct.

(9) Instinct.

Instinct brings us into the realm of animal and human psychology, and is, therefore, more appropriately discussed in the next volume. But it has been connected very closely with organic life.

Bergson on instinct.

Thus Bergson says that it "only carries out further the work by which life organises matter . . . the instinct that animates the bee is indistinguishable . . . from the force which animates the cell, or is only a prolongation of that force. In extreme cases like this, instinct coincides with the work of organisation."[2] Some observations, accordingly, are permissible at this stage.

[1] There is, perhaps, a psychical "heredity," other than that conveyed by the germ-plasm, to be considered, but of that I say nothing here. It is ignored by current science, but will be discussed freely in our second volume.

[2] *Creative Evolution*, English translation, pp. 174–5.

We do not, as previously urged, need the intrusion of "Matter" and "Force" (an almost empty word) into this discussion. These are not realities in the imaginal structure of Nature, but man-made concepts or substitutes for real content-activities present there.

Instinct as "knowledge at a distance."

But Bergson's view of instinct as "knowledge at a distance" is arresting. "All goes on as if the cell knew, of the other cells, what concerns itself; as if the animal knew of the other animals, what it can utilise—all else remaining in shade." [1] This has its root in the unity of life; a "whole sympathetic to itself." The *Sphex* wasp divines thus what is needful to it in the body of the cricket which it paralyses. And again, "it is impossible to consider some of the special instincts of the animal and of the plant, evidently arisen in extraordinary circumstances, without relating them to *recollections*, seemingly forgotten, which spring up suddenly under pressure of an urgent need." [2] What have we, who dispense with "Matter" and "Force," to say on this head?

Generally speaking, this.

A criticism.

Even the lowest natural agent—the Nuclear—awares *content*, originally foreign to it, in so far as that content invades it. It does not follow, however, that it "knows of" this content as being *another agent's*. Even the Cell may not be near this level of psychical life. And probably very few, if any, plants.

But animals in great numbers take note of other

[1] *Ibid.*, p. 176. [2] *Ibid.*, p. 176.

agents much as we do. What explanation of instinct applies in these cases ?

Instincts, we must recall, are of great variety ; and if some, such as Bergson's case of the *Sphex*, lend themselves to an explanation by telepathy—the animal divining the situation it has to face "at a distance"—others are not so amenable. The pug turning round and round before settling down on the rug illustrates an instinctive way of acting, no longer, however, adaptive. Instinctive actions, in suitable *and unsuitable* surroundings alike, seem to occur largely because similar actions occurred in the life of the species before. The misapplications and distortions of instincts, as we know, are numerous. A good case of distortion is the following :—

"Many young crabs, *e.g.*, of Stenorhynchus, are infested by other crustaceans of the family Bopyridæ, which become mature at the time when their hosts should also be mature. But the gonads of the crab have been destroyed by the parasite and a remarkable change has been brought about. If the crab be a male, it exhibits some of the structural features of a female, it loses its masculine impulse and it *actually defends its parasite as a female does her eggs*, the parasite protruding on the outside of the tail just where a female crab carries her eggs. It used to be remarked as very curious that only female crabs were attacked, but Giard showed that many of the apparent females were parasitised males. If the victim be a female, there is no change of instinct, *except that she cherishes the parasite instead of eggs* which are absent." [1]

[1] Geddes and Thomson, *Sex*, pp. 83–4.

The "knowledge at a distance" of Bergson's instinctual insight seems certainly defective here.

A theory of instinct.

Now, seeing that instinct "prolongs" the organic life into that of the *chief* sentient allied with it, what is the comprehensive kind of explanation indicated? It is that the conservative and creative *imaginal* life of the organism is prolonged thus. The merely conservative side covers all degrees of habitual or constant action, *useful, useless, or even noxious* to the body; covers all inherited ways of behaving which repeat prior ways originally, at any rate, of novel or creative type and of worth to the species. The more this merely conservative behaviour dominates in an animal, the more liable is the instinct which "prolongs" the organism to function irrelevantly or lend itself to distortion.

Creative imagining brings the required plasticity into instinct, as is seen very obviously in the cases of human sentients who, in obeying instinct, have usually to *improvise* their behaviour to a great extent.

Does "knowledge at a distance" characterise instinct, or does creative imagining supply a more *useful* substitute? If the *Sphex*, "at a distance," was aware of too much of the cricket, including its pangs, it might not sting at all! Its knowledge would have to be limited—by what means is not clear. Otherwise the *Sphex* family would have to go on short commons; Madame *Sphex* declining to fill the larder at the price asked.

In a psychical universe in which the different

agents are all penetrated by "much else," though not, as we saw, by "all else," a sentient always awares contents which are coloured by contents of sentient lives beyond itself. So that, in this sense, there obtains universal "telepathy." But animal and human sentients certainly do not always meet directly; in fact, in most cases examinable by us they are clearly related *mediately*, and what comes to one from another has been altered by the media passed through on the journey. The lover is not directly aware of the experiences of the beloved, though he sees her soul *mediately* in the rapture visible, as we say, on her face. I am not directly aware of the person who telegraphs to me from India, though I can imagine a good deal about him. Consider now the instinct (conservative action) of the stoat who nips a rabbit very cleverly just at the right place behind the ear. The stoat modifies (creatively) this inherited way of acting to suit the circumstances of the particular new rabbit hunted. But can we say that this action depends on "knowledge at a distance" of the rabbit's arterial and venous system? If a dummy rabbit, looking and smelling exactly like a real rabbit, could be made to run before the stoat, would it not be nipped in the same place as are others? Is it not the ordinary visible outer form of the rabbit which calls the instinctive action into play?

The case of the stoat and rabbit.

There are many cases recorded in the annals of "telepathy," of relations between human sentients, whose bodies were separated by hundreds of miles and whose communication was not mediated in any way known to science. But even in these cases we do not know, and therefore must not say,

that the sentients were directly aware of one another's experiences. Still, even if they were connected mediately in some unknown way, the " telepathic " relation retains its great interest.

If you credit the stoat with a divining " knowledge at a distance " of the rabbit's anatomy, or as much of this as suits its purpose, you can still suppose that this knowledge is mediated just as human " telepathic " knowledge may be. But it would be well to see what the stoat does to the dummy before resorting to such an hypothesis.

There are many modes of psychical life inherited besides instincts ordinarily so-called. And some implicate cognitive, emotional, etc., experiences which are far more than mere extensions of the body's life. A theory, which seeks to embrace all that is given to the human sentient at birth and after, must sound depths of which we have yet to take account.

CHAPTER IX

FIRST STEPS TOWARD A SOLUTION OF THE RIDDLE OF EVIL

"A finalist conception of the world admits of no exceptions, and has to explain everything according to its own principles."

Prof. RIBOT.

Hegel on God in the history of the world. The great plan.

§ 1. "GOD," writes Hegel, in language easily misunderstood by plain men, unaware of what he means by the word "God," "governs the world; the actual working of His government—the carrying out of His plan—is the history of the world." [1] And, again, "That the history of the world . . . is the process of development and the realisation of Spirit—this is the true Theodicæa, the justification of God in history. Only this insight can reconcile Spirit with the history of the world—viz., that what has happened and is happening every day, is not 'without God,' but is essentially His Work." [2] "What was intended by eternal wisdom, is actually accomplished in the domain of existent, active Spirit, as well as in that of mere Nature." [3] God and Nature are not at strife, for this view would imply that God is finite. Now Hegel's God—the IDEA—is not, of course, a mutable person with a history, and Hegel's philosophical Christianity would

[1] *Philosophy of History*, Sibree's translation, p. 38.
[2] *Ibid.*, p. 477.
[3] *Ibid.*, p. 16.

leave the plain man, could he understand it, cold. But Hegel's attitude here agrees verbally at least with that of Christian mystics and most theologians in maintaining that God is manifested in the history of the world, and that His plan of evolution revealed therein can be justified.

"God" is a word with many meanings. We are quite clear as to what it signifies for us.[1] We are more or less clear as to what it signified for Hegel. We are sure that it arouses very different ideas in different Hindus, Parsees, Christians, and Mahomedans according to the intellectual levels of those making use of it; we find that some of these ideas are arresting, and very many exceedingly poor. There is a sort of convention which decrees that every one who uses the word "God"—Hegel, Mill, Spurgeon, a child in the nursery, and a converted Fuegian, for instance—is calling our attention to the same idea. Which is quite absurd. But, not to waste time over this matter, let us suppose that all these folk (ourselves excluded) mean the same idea; that they believe in the same God as sovereign of the world. All contend, then, that God's "plan" can be justified. They hold that all 's right with the world, since God, as Browning declares, is in His heaven.

The "plan" and the problem of evil.

This might seem a right royal method of dealing with the problem of evil. But there are those who deny that the "plan" can be "justified" in a way satisfactory to the finite beings whom it concerns. And, after all, this is the matter of chief importance to ourselves. What shall it profit us

[1] Chap. VI. § 3.

that the Absolute, in some unintelligible manner, is "perfect," or that God is in His heaven, if we and other finite sentients live in an unsatisfactory world and have no consolatory prospects worth considering?

The problem of evil, therefore, must be solved in a manner which contemplates, not only the "All-highest" Hegelian or other God, but also the interests of individuals, such as you and even the many humble animal sentients that are too often ignored. Whatever epithets may be showered on God in His heaven, it is essential that the "plan" does not leave these individuals outside its scope.

The problem of evil cannot be disposed of by phrases.

Evil, as we shall see, belongs to the time-process. To solve its problem we must understand adequately this process and the direction whither it leads. The problem has been considered by many thinkers insoluble, and by others, like Schopenhauer, to indicate that Ultimate Reality is *not such as ought to command our trust.* And their contentions are not to be disposed of airily by poets who see in Nature the "living garment of God," or by apologists who find it the "mirror of the Almighty." [1] For the stains on the "garment" are many and the "mirror" reflects abominations which only faith can ignore. A great world-religion of the East, Buddhism, insists that the time-process is saturated with pain. There is to-day, even in Europe and America, a large body of opinion which doubts whether conscious life reaps values such as compensate for its ills. How are we to still this unrest which darkens thought? Assuredly not by pretending that all is well. Very much is obviously

[1] Sir O. Lodge, F.R.S., *Man and the Universe*, p. 231.

very bad. Do not bury ugliness and misery under roses of rhetoric and then assert that they smell sweet. Let us rather be penetrated utterly by these sinister things ; let us emphasise the abominations of the time-process, if only to be sure that we are grasping our problem at all. "Solutions," as in cases of great social movements, are apt to come when unresolved, and consequently painful, collisions of thought are at their worst! It is at a price that we pass to the imaginal "solution" that closes a truth-struggle. It is at a price, as we saw, that the creative principle in the beginning advanced through unresolved conflicts to harmonising result.

The first thing to do, therefore, is to saturate our thought with the sinister aspects of the world and then to cast about for some way of understanding them.

Mindful of the citation with which we opened this chapter, we could draw up an indictment of "God" in view of the manner in which the "plan," so far as our experience has followed it, is working. Let us look at reality awhile with the eyes of the pessimist and take note of some of the evils which mar creation.

Evils are real—as real as colours, stocks and stones. Attempts to deny them are quite futile —in fact *verbal*. The truth that reality is psychical, or, as is sometimes said, of the character of "mind," must not be vitiated by rhetoric about the "non-being of evil." Anything to which you can point in experience is real, though its reality may be only

Evils are real.

a passing feature of the time-process. The solution of the problem of evil does not lie in an assertion that evil does not exist. While words are being piled on words, evil answers the fanatic by doing the only thing that could be done to manifest its reality—it appears within sentient experience.

The "plan" and animal sentient life.

§ 2. Confining ourselves to the lots of animal and human sentients, let us ask first how the animals fare, and observe some things which God's "eternal wisdom" is "actually accomplishing" in the history of the world. Take note, incidentally, that we are not in Hegel's predicament, since for us "God" means an exalted, but finite, Power which does not shoulder the entire burden of creation; a Power very wise, very beneficent, and very strong, but limited by conditions which it did not make.[1] There may be similar Powers innumerable allied with other World-Systems, none to be regarded as the sources of all the phenomena which their Systems include.

At close quarters.

There is a happy side to animal life which no one will overlook. But the abominations connected with it are legion. The struggle to eat and to dodge eaters, which has forced the animal to become, in the main, so mobile, has forced also the creation of its most forbidding forms and qualities. Once it is a rule that animals should over-multiply and compete for subsistence, the production of evils untold is incidental to the business. And success in the fray is primarily a mastering of circumstances, not an inevitable progress in which lovers of beauty, dawning intelligence or physical

[1] Chap. VI. § 3, "God."

excellence might take joy. Thus bacterial and protozoan creatures innumerable infest superior forms; raiding the vertebrates freely and sending scores of species to assail Man. Astonishing multiplication, and as astonishing devices to secure their footing, are met with. Their equipment, in regard of the superior forms, is an elaboration of pain-bringing mischief. This evolutionary riot ignores ethics; "the predatory species flourish as if in derision of moral maxims. . . . Animals, at first indistinguishable from vegetables, devour them and enjoy a far richer life. Animals that eat other animals are nearly always superior, not only in strength and grace and agility but in intelligence." [1] Violence succeeds well with the tiger, wolf, and stoat, while the sheep, antelope, and rabbit are slaughtered in hordes. The rabbit's history is worth study by those who believe in moral creation on this level. But there is no lack of pictures in the gallery. Humboldt's account of the miseries of the wild horses in the Orinoco basin is riveting; describing, indeed, a terrestrial hell. Theodore Roosevelt, writing of his march "Through the Brazilian wilderness," tells us in the straightforward manner for which all respect him, that :—

"In these forests the multitude of insects that bite, sting, devour, and prey on other creatures, often with accompaniments of atrocious suffering, passes belief. The very pathetic myths of 'beneficent Nature' could not deceive even the least wise being if he once saw for himself the iron cruelty of life in the tropics. Of course, 'Nature'—in

[1] Carveth Read, *The Metaphysics of Nature*, 2nd ed., p. 344.

common parlance a wholly inaccurate term, by the way, especially when used to express a single entity —is entirely ruthless, no less so as regards types than as regards individuals, and entirely indifferent to good or evil, and works out her ends or no ends with utter disregard of pain and woe."

A damning indictment of the "plan," is it not, if this "plan" is to cover all the field? And yet, despite the long martyrdom of animals, what do we see? That, as Bergson points out, two of the four main directions of animal life have "led to blind alleys"; while, in the case of the other two, "the effort has been generally out of proportion to the result."[1] Those who acclaim rapturously the "plan" must be more easily moved to enthusiasm than we. For the truth is that, despite the pains inflicted so lavishly in all quarters, despite the ruthless savagery that marks animal evolution, success, full and complete, has not been attained.

Diabolism in evolution.

The "plan" not only disappoints us; it has added enormities to its failures. There are the instincts of the butcher-bird which impales small mice, beetles, etc., on thorns for its larder; of parrots which tear kidneys out of the living sheep, of wasps which lay eggs in caterpillars and spiders, paralysing them with a rare precision to provide meat for the larvæ. The diabolism shown here is surpassed only by the crimes of the worst vivisectors; and the gallery of alleged "divine accomplishment" contains many companion pictures. The buck slowly worn down by wild dogs, or the moose by wolves, the buffalo which has to stand

[1] *Creative Evolution*, English translation, p. 136.

in the water all night to avoid mosquito-bites, the eland-antelope, which is said to incur heart-strains in its flights from beasts—these are things which surely belong of just right to an inferno ? Is the invention of this inferno to be fathered on the divine thought ? Is there no other way of understanding the evolution of parasite, mamba, sphex, tiger, shark, stoat, and a thousand other pests, offensive even to half-developed moral man ; man who is himself a slaughterer and torturer and yet is beginning to resent the inferno which he finds presented to him in Nature ?

The traveller Sir S. Baker has told us that the struggle among wild animals in Africa is a " system of terrorism from the beginning to the end." [1] And he at least was no weakling shocked at a trifle. It is of a piece with this riot of evil that even the higher carnivores, who terrorise, are apt to perish miserably as soon as their teeth and agility fail them, so Livingstone tells us.[2] They are bred and thrive at the cost of other sentients, and are then left to rot. The " plan " seems somehow outside them and their victims alike.

These facts suffice for the case of animal sentients. We are not overlooking the fair side of such lives, but we have to demand strenuously that *all* facts should be taken into account by hypothesis that desires to explain and not to dodge difficulties. The " plan " offers no adequate explanation of animal forms and vicissitudes.

[1] *Wild Beasts and their Ways*, ii. 376.

[2] *Missionary Travels in South Africa*, pp. 135–6.

The Martyrdom of Man

§ 3. Hardy tells us that Tess of the D'Urbervilles found birth for her and her like an "ordeal of degrading personal compulsion, whose gratuitousness nothing in the result seems to justify." A certain lake-poet, with a liking for primroses and local knolls, would have seen Tess trailing celestial glory. The regrettable thing, of course, is that Tess cannot feel the glory, while Wordsworth, again, cannot see the undivine slough of drudgery, squalor, and monotony through which Tess and the majority of mortals are driven betwixt birth and death. Candide, in Voltaire's satire on philosophical optimism, is always in pursuit of Cunégonde, and, possessing his ideal at last, he finds her . . . unsatisfactory. The workers of the abyss are not always sure that Cunégonde is satisfactory even before the chase. Hence the prevalent resort to drink and drugs; a species of revolt against a world that condemns too many of its victims to grey and banal lives.

The hard way of human life.

The tragedy of Tess symbolises the workaday ordeal of the majority of mankind; that ordeal reflection on which prompted the revolt of the Buddha. True, the world is full of catastrophes which may seem foreign to a guiding "plan." History, Hegel himself tells us, is "the slaughter-bench at which the happiness of peoples, the wisdom of states and the virtue of individuals have been victimised,"[1] but the salient disasters are local and come and go. It is the workaday ordeal, with its tedious iterations, pettinesses and squalor, that is too much with us. It has its compensations of many sorts, but the founders of religion are right

[1] *Philosophy of History*, Sibree's translation, p. 22.

in denying that they suffice. Terrestrial life, regarded as an end in itself, is, at any rate, not universally prized. And the cry goes up—why is the "plan" so disappointing as it has proved to be in history?

The "plan," again, has not succeeded fully with the construction of the human body—the "vile body" of Buddhists and Anglicans alike. On Voltaire's principle that the "crapaude" is the ideal of the "crapaud," we are accustomed to overrate the body, and, on the strength of its colours and lines deftly improved and harmonised, to enshrine it in the temple of Art. No doubt the idealised body can even be worshipped at need, figuring thus in the long list of religious objects past and present. It is well to idealise when the process brings a passing satisfaction and peace. Still do not forget that, whatever the idealised body may be, bodies, as they belong to us, are far from being instances of a perfect divine workmanship. Most in the nude are ugly and the finest offend æsthetic ideals. What can you expect? Helen of Troy is built round a "digestive tube"; the past of the mean cœlenterates is with us still! These bodies, too, lack a sufficiency of means of self-repair, are seldom long at their best, and are unequal to the stresses which "history" asks of them and which the "plan" seems to have overlooked. The "mortality of occupations" [1] is instructive in this respect, and presents a problem which, at any rate, will prove very difficult to meet. Birth and death, squalid at best, are worse often than the horrors of

The "plan" and the human body.

[1] *Cf.* Dr J. T. Arlidge, *The Hygiene, Diseases and Mortality of Occupations.*

Roosevelt's Brazilian forests. Bacterial and protozoan pests are insufficiently guarded against. *Fear*, Preyer tells us, is the first primitive emotion in the order of appearance in the child; this and *Anger* both precede any show of affection; telling indications, indeed, of the hard road which the stock has had to tread. But, despite this commanding position of *Fear*, it will be found that the body's actions, which it prompts, have been insufficiently organised. The following excerpt from Mosso is cited from James:—

"The graver the peril becomes the more do the reactions which are positively harmful to the animal prevail in number and inefficacy. We already saw that the trembling and the palsy made it incapable of flight or defence; we have also convinced ourselves that in the most decisive moments of danger we are less able to see (or to think) than when we are tranquil. In face of such facts we must admit that the phenomena of fear cannot all be accounted for by 'selection.' *Their extreme degrees are morbid phenomena which show an imperfection in the organism.* We might almost say that Nature had not been able to frame a substance which should be excitable enough to compose the brain and spinal marrow, and yet which should not be so excited by exceptional stimulation as to overstep in its reactions those physiological bounds which are useful to the conservation of the organism."[1]

Mountaineers are well aware of this danger of nervous failure *when efficiency is most wanted.* It

[1] W. James, *Principles of Psychology*, ii. 483.

tells its own tale. There are superior organisms, but how many ?

"Throughout Asia," observes Mill, "and formerly in most European countries in which the labouring classes were not in personal bondage, there is, or was, no restrainer of population but death." Let those who include this in a "plan" defend it as best they may. The "divinity of measure" is lost to view. There is no virtue in mere struggle which may suppress superior characters of the *ideal* sort remorselessly, and drench the survivors with a common misery. What have over-multiplication and famine, for instance, done to better the evolution of the Indian ryot ? And why do feeble-minded persons in the hungry swarms show themselves exceptionally prolific to the hurt of the rest ? The "plan" and population.

Turn now to the "mind" of man, in which Sir W. Hamilton saw the only great possession he owns. We do not accept the belief in an entity "mind," preferring to discuss a *wider stream of experience* in which the processes and results, attributed to "mind," occur. But in conformity with a usage, not yet fully revised, we will take over Hamilton's "mind" and note some of the features which seem to have been introduced into it by the "plan." The "plan" and the "mind" of man.

To begin with pleasures and pains, it would seem that human lives are weighted, here and now, in the direction of pain. We are not defending pessimism, but we are obliged to be open to the facts. Wundt points out that the gamut of pleasure is less rich than that of pain. And Grant Allen tells

us that "massive pleasure can seldom or never attain the intensity of massive pain, because the organism can be brought down to almost any point of inanition or exhaustion, but in efficient working cannot be raised very high above the average. Similarly any special organ or plexus of nerves can undergo any amount of violent disruption or wasting away, giving rise to extremely acute pains; but organs are very seldom so highly nurtured and so long deprived of their appropriate stimulation as to give rise to very acute pleasures." [1] Schopenhauer points out how poor is the list of pleasures in Dante's *Paradise* compared with the pains of the *Inferno*. Dante wanted to depict the home of Beatrice in glowing colours, but he lacked the materials so abundant when terrors were being described. Organic pain, again, viewed as a protective device, is largely stupid. "Pain, that 'vigilant sentinel' of the advocates of final causes, remains dumb, or only warns us when the evil is of long standing or irremediable. Nay, more, it often misleads us as to the exact seat of the disease. Examples of false localisations abound." [2] The emotions and passions—the momentary waves and the lasting swell of our affective lives—teem with monstrous growths. The sexual emotion is a good instance in point; the drive here being, it is thought by many biologists, connected with the excessive production of sexual elements in lower ancestral organisms.[3] A fierce urge harries and worsens human social life largely because an original impetus, once useful, persists obstinately and irra-

[1] *Physiological Aesthetics*, p. 107.
[2] Ribot, *Psychology of the Emotions*, p. 89.
[3] *Cf.* Geddes and Thomson, *Sex*, pp. 50–1.

tionally ; *i.e.* with no purposive value to the species. So strong is this urge, that, as Freud and others have shown, repression of it, on the spur of the "higher morality," may have injurious effects on body and mind ; another most notable instance of the character of the "plan," and one exceedingly inconvenient for current theology.

The much condemned savagery of many communities is a direct outcome of the pressure of the older struggle for existence and a legacy all too easily called into use. Let us remember Bain's words about sympathy and apply them. "If we were on all occasions touched with the unhappiness of others immediately and remotely springing from our conduct, if sympathy were perfect and unfailing—we could hardly ever omit doing what was right." Aye : if our actions were guided by intelligence like that of Plato's philosopher-kings ! But the struggle, which must be taken as part of the "plan," *has tended to suppress wide sympathies, and, consequently, to this extent, to miscreate mankind.* Men saw their rivals too much from the outside, as mere *obstacles* to their getting what they wanted. *Hinc illæ lacrimæ !* There result abominations of "frightfulness" such as the following. "The cannibal tribes, which are not the lowest but represent the highest development among the peoples of the Congo valley, often stick the living victim full of bamboo skewers to pre-empt portions of the meat before slaughter." [1] This is an instance only of numberless atrocities which figure in the long history of man as military tyrant, "boss," persecutor,

The "plan" and the fostering of savage instincts.

[1] Ellsworth Faris, "Origin of Punishment," *Intern. Journal of Ethics*, October 1914.

slave-owner, animal torturer, and exploiter of helpless weakness. The "religion of valour," acclaimed to-day, is an echo of this bestiality. You cannot expect angels to emerge suddenly from a world-order such as ours, and you ought to condemn the said order at least as bitterly as you do the oppressors which it has generated. Even the parental emotions are not securely enthroned. There had to be a "children's charter" for modern England, so numerous were the parents debased by their own or ancestral struggles. The past surges up persistently like an opened hell. Even the normally kind mother, tending her children, has felt "a craving which she regards with horror, to stick pins into them, or even to cut their throats." [1] In parts of Africa the natives revel in torturing a wounded animal; boys, as every one knows, take readily to cruelty. And, as Dr Stanley Hall writes, "Who that is honest and has true self-knowledge will not confess to recognising in his own soul the germs and possibilities of about every crime, vice, insanity, superstition and folly in conduct ever heard of? . . . Barbaric and animal traits and instincts jostle and mix with each other in leaderless mobs of impression. Reason makes in every age errors almost as colossal as superstition with which it is often veined." [2] Of such stuff is much of the "mind" said to be thrust upon us by the "plan."

Man. "How noble in reason"?

Man as reasoner is equally faulty—meaning by "reason" the processes which conspire to inference. No one of any weight takes more than ten per cent. of reasoners seriously, if they step beyond

[1] *Crime and Insanity*, Dr Mercier, p. 35.

[2] *Adolescence*, vol. ii. p. 68.

their narrow pales of business; the man who held that "strong drink must be the cause of strength" is by no means a bad representative of democracy's logic. The power to reason clearly, as a workaday test-discussion of Free Trade, God, or the Origin of Species will show, is quite a rare quality. The panegyric of man by Shakespeare, "How noble in reason!" applies at best only to the very elect in their best moments—in other moments their reasoning may lead nations and individuals utterly astray. Truth to tell, the "plan" contains reasoning as a merely experimental and fallible process, which few only can conduct brilliantly and which very many bungle continually. For this cause a text-book of logic always deals elaborately with "fallacies," though the logicians, when they come to deal with philosophy, science, or practical life, sin freely in the direction of these fallacies themselves. To crown the situation we have the lunatics and feeble-minded, an inexplicable output of the Hegelian "Logical Reason," which comprises all! According to the report of the Board of Control under the Mental Deficiency Act lunatics are increasing in England: 140,466 insane persons gibbered to the triumph of the "plan" in this country on January 1, 1915.

These are grim reflections, and they are not to be laid. We are not urging them as pessimists, but with intent to proffer indications that current inadequate renderings of the "plan" will not suffice. You cannot explain these actual happenings, if you steer by current theology. And there is no idealistic Absolutism, Hegelian or other, which can meet the difficulties sampled. Let us give two

illustrations of sham solutions which at best cover only part of the field, and which are untenable even there.

Sham solutions. Hegel.

Hegel warns us against a superficial view of history—the "slaughter-bench." That which is unfolding itself is the IDEA or Spirit which moves to self-comprehension and freedom, "using" the selfish passions of men and incidentally martyring the elect. It does not consider the well-being of the individuals thus used. Now we will not press the point here as to how Spirit can make any move of this kind, seeing that time-succession, in the Hegelian system, is unreal. We have dealt with that. We will ask (1) in what manner can the *general* view of Spirit, taken by Hegel, be defended to the dodging of the innumerable abominations which obtain in the *detail* of finite lives? There is no escape from this detail which must be accounted for, must be explained satisfactorily to the critic. A whole, whose parts are evil, cannot itself be perfect, as Dr Schiller has urged appositely. Is not the movement of the Moloch-IDEA, with its idle aim, bought at the cost of "negligible" creatures who are not supposed to count? And is not this ideal of philosophy an echo of those barbaric days when the king was held to be the only power of genuine worth, and his slaves, the community, so much fodder for battle?

(2) The selfish passions "used" cannot possibly all be made to conspire to the glory of Spirit. Gille de Retz, who violated and slew hundreds of children in his castle, the Persian king who collected loads of eyes as Tamerlane did skulls, the black tyrants who tortured for Ju-ju worship, and droves of like

folk, have done nothing of any value for the divine uses. They are outside this absurd scheme of the study, and yet each victim of devilry, negligible as state-philosophers may think him, was conscious, and, in that respect, the peer of the IDEA itself.

This Theodicy does not even apply to most of the difficulties which we adduced just now.

A similar Moloch Absolute is defended by Royce: Royce. "God who here in me aims at what I now temporarily miss, not only possesses in the eternal world the goal after which I strive, but comes to possess it even through and because of my sorrow . . . in the Absolute I am fulfilled." Here, again, there is a real time-process implied. But that God should possess the goal toward which Gille de Retz and black torturers strove is a thought that seems not quite encouraging. And, when stirred by high endeavour, I desire to work primarily for myself and other finite beings for whom the harvest shall be assured, not for the Absolute, on the watch, like a capitalist, to exploit my slavish life. The history of the past is not sufficiently inspiring to lure us to sacrifice—for the Absolute.

What jungles of evil lie outside this narrow type of solution!

STEPS TOWARD A SOLUTION OF THE RIDDLE OF EVIL

§ 4. "Evil" or "ill" is a term of great width of application. It includes pains, specially associated with the state of the body, and called sometimes, accordingly, "physical"; it has to include rudi-

mentary painful psychical life even in depths such as are peopled by the Nuclears and other sub-animal sentient agents; on the other hand, it is a label which might be applied, *e.g.*, to teaching, rumour, religion, the weather, drink, a law, an ethical injunction, a custom, a species, a man, town, nations, or the entire world-process. Many have considered the world-process as an evil that ought not to be; others have asked whether God, if a reality, might not be evil. Again, there is a special æsthetic evil of ugliness; there are moral evils of wholly private harbouring and many others. We surmise at once that a term, used thus widely, may be treacherous; is capable of being bandied about at haphazard by cloud-makers. And we are right. Having noticed this width of application, we shall be prepared for a correspondingly wide "solution." With this prefatory warning let us get to business. The clue is already in our hands.

Evil belongs only to the time-process.

In moving toward a solution, we are enabled to say something unhesitatingly at once. There can be no evil in the Cosmic Imagination considered apart from creative episodes. This ocean of the infinite, the "activity of rest," the static conservative background of the time-process, is devoid of *conflict*; is, consequently, what, in Indian phraseology, we might call knowledge (imaginal) and bliss; the joy eternal, the ἐνέργεια ἀκινησίας whose delight is as perfect as its perfect imaginal life.

Evil, in fine, belongs, and can belong, only to the time-process. It implies unrest, multiplicity, change, conflict, thwarting, with the attendant

varieties of pain. How, then, came it to arise in connection with time-process at all? How came this creative changing to include conflict? We are reducing the riddle to a not intolerable form.

The birth of evil.

Evil is born with the change which we discussed under "The Creative Appulse." And we begin now to perceive *why*. But before going further let us recall a few points about pleasure and pain which are relevant to developments in view.

Pleasure in its very many kinds (variously labelled ecstatic, joyful, beatific, delightful, etc. etc., down to mere agreeableness of a colour, taste, visceral sensation, or muscular tension, etc.) is the mark of free or furthered psychical activity or life. Pain marks conflict, thwarting, discord between two or more agents, or between two or more aspects or contents in the psychical life of a single agent. It is the feeling which attends all unresolved conflicts *in any quarter*, whether in what we call "inorganic Nature," in our own lives,[1] or beyond. Whenever there are conflicts, pain will be felt by all the sentient agents whose lives are *thwarted*, directly or indirectly, thereby. Apart from thwarting of one kind or another there can be no evil with its, for sentient agents, implicated pain.

Evil is implicated with this pain and this thwarting of conflict. It is a label which conveys our

[1] Needless almost to observe that the interrelations of the different levels of sentient agents greatly complicate the facts. Thus the pains I feel in my neuralgia belong also in some manner to the minor sentients of my nerve-centres, and the sorrows of Werther may belong also somehow to the experiences of a god.

resentment. The monster indicated ought not to be; there is a sympathetic revolt of sentients who feel their prospects menaced. Evil is a label for that which is or brings pain, but it covers also marrings, frustratings, thwartings of development which are often much wider than the implied painful feeling. There is evil in two very important contrasted fields: (1) that of the thwarting which takes place amid the multiplicity of a World-System, and (2) that of the discordant World-System itself regarded as a whole. An evil of the first sort, of local significance only, is illustrated by a clash of sentient agents, like two wolves which oppose and thwart one another, by my experience of a burn, disappointment, or disease. These trivial details melt into the yeast of cosmic change. They mark quasi-purposive and purposive activities, on the small scale, that cross and clash with one another. An evil of cosmic importance would arise, were any very powerful sentient or groups of sentients to prove capable of opposing and thwarting the immanent purpose which guides the imaginal World-System itself. Evil, however, on a cosmic scale exists at this moment, seeing that "our" entire World-System, ever since the Metaphysical Fall, has been a prey to *internal conflict and thwarting*. Creation, pain being the mark of such conflict, has been well described as groaning and travailing. It is literally in evil phase. But it makes, through unrest that denies a halt, toward some harmonious consummation in which evil, as we experience it, can have no place. Evil seems to haunt Acosmism, *i.e.* the not yet surmounted riot of anarchy and chance which succeeded the creative appulse. It will vanish when the perfect, *i.e.* the "completely

The two great fields of evil.

made " cosmos, which requires no further changing, has come.

The responsibility for the birth of evil.

We have lamented the fates of finite sentients ground small in the mills of creation. We have pictured them too much as victims on whom some extraneous necessity has been thrust. But a reference to Chapter IV. will remedy this attitude.

Why did the World-Idea fall apart into that warring multiplicity which is the presupposition of evil and all its pain ? It fell apart *because of the origin of finite sentient agents themselves* ; sentients into which a great conscious appulse *divided itself* (Chap. IV. §§ 2, 3). The victimiser and the victims are the same reality in its transformative or creative life. This is a tremendous truth. The evils, to which sentients are heirs, are the price paid for their appearance on the field of creation with its indefinite possibilities of growth. Exactly. But the truth lies even beyond this in the direction stated above. The appulse has divided itself among the sentients ; is *itself* in the adventures of the great, but also terrible, romance. And subordinate explanations of evil must all take account of this commanding fact. A creative episode is an experiment, and you cannot expect experiments in an *imaginal* world to be without surprises.

Schopenhauer on the fundamental evil.

Schopenhauer had the glimpse when he wrote that the fundamental evil was the forsaking of its unity by the " Will," whence plural individuals, struggle and misery. But he overlooked that unity may be forsaken in this manner in the cases of indefinitely numerous World-Systems besides

ours, and that the creative evolutions commenced are, perhaps, in the long run, eminently to be desired. These evolutions occur because they embody immanent purpose, springing not from "blind Will," but from imaginal activity that builds better than we wot. The facts, favouring Schopenhauer's pessimism, turn on this. The self-differentiation of the World-Idea into elements of overt "negation" and conflict is enforced by the arising within it of multiple sentient agents as described in Chapter IV. Hence the struggle which conditions inorganic evolution. The continuation of struggle into organic Nature and beyond brings with it the various abominations of which we had to make mention. Now Schopenhauer regards these evils as unmasking the character of a radically evil world. But it is true to say that they are incidents, in large part neither foreseen nor foreseeable, which must be accepted as part of a great adventure.

This evil, however, is not the *fixed* one which his pessimism implies.

Imagination creates, scattering at once roses and thorns. And here we reach an important subordinate truth. It is not imagining in the form of the undivided World-Idea which is responsible for the appalling details of Nature "red in tooth and claw." Organic evolution is largely the field of an imagining that has *run amok*. We have to recur to the conception of local creative initiatives and we shall at once perceive why. The initial conflict has divided the World-Idea against itself, though its continuity is far from being wholly lost. What ensues? Its members, reciprocally interacting, show in these interactions the imaginal initiative of their source. And this initiative is

How imagining runs amok in Nature "red in tooth and claw."

bent to subserve local uses in the struggle for existence. *Anything*, however grim, in the way of a "variation" may appear, provided it can find physical support and furthers the organism's life. Parasite, tiger, butcher-bird, mamba, python, spider, scorpion, are evolved—these local creative initiatives stop at nothing. Organic Nature in these fell modes is like a nightmare which takes command of a dreamer unable to control his dreaming. The deftly-built insect, which destroys a superior form with tortures, is not the work of a God who may be charged quite gratuitously with crime. It is created by local initiative, whose experiments Natural Selection favours or casts to the heap.

Horrible echoes of the past within men of to-day.

Such initiatives, issuing in structures which are continued into instincts, tend, on their conservative side, to entrench themselves and to endure, long after their original uses have lapsed, in heredity. The ape gibbers yet through the thinker. We of successful mankind catch horrible echoes from the past breaking upon our intellectual and affective lives. The dark past, lingering in the present, dies hard, and cannot be transformed utterly in our little day. The persistent is clearly not always the excellent. And the higher morality ought always to bethink itself of means whereby such legacies, as far as in us lies, shall be modified into nobler forms.

The "religion of valour."

Certain modern ideals such as the "religion of valour," the supremacy of might, and the like, derive from the abyss. They are the cult of men who are unable to find their way forward in philosophy, and, having to do something, end by

retracing their steps to the past. Of such is the Nietzschean and militarist. Such attitudes, when not errors due to ignorance, are spiritual crimes; they call upon the now relatively free individual to fix the evil of the old order which has to pass away.

God and the other creative initiatives.

We can detect, in a general way, the conditions by which God was and is limited. God is not a static, immutable entity, but grows; is the conscious life of *this* World-System in so far as it can be called a whole. But this great life does not subordinate fully, or, perhaps, as yet even include, all the creative powers which have a place in the said System. It is conditioned by the history and the existing character of the System which, like my own body, comprises minor sentient agents, and, like that body, is not just clay for the potter to be moulded at will. It is idle to speculate as to what precise excellences and what degrees of them characterise this exalted, but still evolving and finite, power. But we are clear that God is in a position to be men's Great Ally; and that for many is of supreme moment.[1]

Why we need not distrust the World-System which conditions God.

God enjoys the greatest local initiative of all sentients in the World-System. But the creative process of this entire System has been distrusted by many, nay, condemned by some as incurably evil. The thought of God struggling vainly in the meshes of such a net would be oppressive. It is uncalled for.

The creative process on the grand scale has to comprise God's and other creative initiatives. It generates much which, judged by standards of

[1] Chap. VI. § 3, "God."

perfection, is intolerable. Agreed. But what of that? The dynamic of creation, as we saw long ago, transforms a *given* situation, the plasticity of which is limited. The story of creation is not that of a magical production of perfection out of the void. *It is one of the slow overcoming of the "fundamental evil" of the Metaphysical Fall*; an evil which is to be altered, and altered as far on the way to perfection as conditions allow. On these lines we can understand why Nature may be at once unsatisfactory and yet the best possible Nature of its sort. Given the "fundamental evil," nothing better, perhaps, could have been accomplished than what actually has been done. Do you ask why the "fundamental *evil*" itself occurred? Our reply has been given in advance; but may be put in a new way. The very "evil," implied by the genesis of a plurality of sentients, will become a "good" in the Divine Event consummating the world-process. There is no way, save through initial conflicts, to perfection. If this be so, it remains for the creative process to turn *the conflicts themselves* to the best possible account. And this, so far as my poor judgment avails me, is what comes to pass.

Creation is the slow overcoming of the "fundamental evil."

Which is not a fixed evil, as Schopenhauer thought, but the germ of Good.

Thus the overcoming of the fundamental evil is also the creative evolution of a World-System. But the number of "loose" agents with local initiatives is indefinitely great; and the overruling of them, in order to the best possible total creative achievement, is the titanic task. The System, working as a more or less broken whole, is conditioned inevitably by the happenings which take place in the detail of its members, just as I, despite

all my high purposes, am conditioned by what goes on among the minor sentients of my ignorant body. What wonder that little or nothing in the world of experience seems good enough to last, and that it is seldom actual achievement in Nature, but rather *possibilities* suggested by such achievement, which make appeal to the idealistic philosopher and the mystic. Splendid in aspects as is Nature, in others it is squalid, horrible, and mean. It is not yet a perfect poem of the Cosmic Imagination. It retains still, at any rate on this physical level of reality, the character of a bacchantic god. But its suggestions carry us far, and we believe on good grounds that the future will surpass even our fairest dreams, and that things, in fine, are moving slowly toward a Divine Event.

Miscreations, and the corruption of imagining.

We seem able to account, then, in a general way for the stupidities, failures, uglinesses and sheer abominations that mar Nature, which is the "garment of God" only in the sense that it robes the finite conscious Power allied with our particular World-System. Nature, as we saw, has fallen away from the activity of rest, is a "corruption of eternity," and generates things monstrous, odious, and terrible in its fall. The corruption of imagining incidental to this fall introduces the dark side of creation. And miscreation, inevitable at the outset, is continued, as we observe daily, in the purposive life of man himself. The dark initiative of man is not to be dismissed vaguely as "evil intellectuality"; it is just miscreating *imaginal* initiative. Imagination is the plastic power that shapes "adaptive actions," and originates even our internal conceptual possessions or instruments themselves.

§ 5. Having dealt with the "fundamental evil," let us consider further a connected topic already mentioned. Conflicts being inevitable, creative process must "use" them subtly to mediate achievement beyond themselves, *thus converting slowly an original evil, so far as is possible, into a good.* A very interesting and instructive case of this utilisation is presented in the story of War. Despite the floods of futile misery involved, we can see that this kind of conflict has been made to subserve certain ends not contemplated by those who took part in it. The story of War is instructive in another regard. It illustrates the danger of making general statements. The assertions "War is bad," "War is good," "War is a biological necessity," "War clears the air," "War enriches a community," "War improves physique," "War invigorates our spiritual health," etc., may be true and untrue at different times. Let us look closer.

The utilisation of conflict. The story of War.

Wars, as attempts of armed clans, tribes, communities to impose their wills on others or to resist similar aggression, cannot be characterised indiscriminately as good or bad. Starting from the "fundamental evil" Nature and History have prolonged in this, as in other spheres, the régime of conflict. But the prolongation has not been a reign of sheer evil—the evil has been *in part*, though in part only, converted into good. The evolution of beasts, as well as of youthful mankind, utilised conflict. Over-protected archaic species, sheltered from struggle, did not keep up with those whose careers of adventure evoked fruitful creation, or "variation." The less protected and less burdened animal freebooter, moving about freely

Organic evolution and the wars of animals.

and never quite secure against want and enemies, was thrust to the fore. We know how imperfectly this hard school has done its work; we know what abominations mark its records. What we have to note, also, is that it has converted a portion, at least, of ancient conflicts into desirable result.

Disappearance of armed conflict in the early stages of human evolution would have meant stagnation or degeneration. Victorious barbarians throve exceedingly alike in physique and possessions, and reflected their joy in their praises of warriors and War. Great numbers of physically inferior conquerors and conquered were swept away to the gain of the future. And, as Spencer tells, the demands of war furthered primitive industries and the formation of large societies with the division of labour thereby rendered practicable. Habits of discipline and subordination were fostered—a nascent sense of duty to the clan, tribe, or community. On the other hand, the aggressive character of the warrior must prove anti-social. "The citizen, made callous by the killing and wounding of enemies, inevitably brings his callousness home with him." This weakening of sympathy demoralised. Add that the need of guarding against reprisals drew heavily on the resources of the community. This last factor of economic burden, however, has risen into dominating significance only in our time.

The wars of primitive barbarians were, on the whole, useful.

War in the remote past was, on the whole, desirable, though it carried within itself the seeds of an inevitable decline from usefulness. If we suppose a superhuman, able to regard it dispassionately as an instrument of evolution, he would have decided

in its favour. Had he been a beneficent creative power, able to intervene in the course of History, he would have made use of it. The mischief could be made to yield advantages.

War as it confronts us to-day. It is moving toward sheer evil.

Let us skip the centuries and consider the problem as it confronts us to-day. *Defensive* wars have their peculiar sanction, self-conservation. They remain needful should cultural, etc., values, worth preserving, be threatened, or even the mere desire of living freely rule the heart. Degenerates alone sacrifice the spiritual gains of centuries to sentiment, and such weaklings are best cast to the heap. Self-sacrifice may be one of the worst vices. The *offensive* war, waged in a moral cause and in a noble spirit against barbarians or mischievous peoples, who hamper progress, cannot be impugned. It is costly: excellent things are often costly. But the offensive war between superior communities is becoming preposterous. The seeds of self-condemnation, which war always carried in itself, are sprouting in this area skyward. Like so many other pests, War tends to move toward that sheer evil which prompts and evokes finally a new "imaginal solution"—an enforced harmonising political arrangement which will abolish it When the mutual miseries produced are sufficiently shattering and are felt to be inevitably so, the "solution" will be sought for and found. The self-sufficiency of States will be modified; they will replace brawling with moral relations.

Old truths about War have been made false by the transformations of the time-process. Thus primitive barbarians improved their physique, secured valu-

able serfs, women, wealth, and showed industrial and social progress at a quite tolerable cost. Their evolution was furthered. To-day the victorious nation, on the whole, is a loser. It has to live in hate-poisoned surroundings. It has lowered its vitality for generations, debasing heredity alike in the spheres of body and "mind" ("Death reaps its harvest always among the best men," says Field Marshal von der Goltz); has wasted blocks of capital, made its members support an increased horde of unproductive consumers, and incurred a grave risk of internal demoralisation.[1] There have been compensations in the spectacle of magnificent heroism and in the awakening of the sympathetic feelings of the civilian population. But the occupations and even the sports of peace provide every required field for the cult of the life virile and the heroisms incident thereto. And the provision of victims to rouse the sympathies of civilians for victims, which certain good folk seem to desire, is scarcely sane. You do not blind a son in order to "improve" a brother who is to make sacrifices for him! You prefer a situation in which there is no victim *and no need of charity at all.* You have to recall, too, that the war-sympathies evoked are narrow and vitiated normally by intense malevolence directed toward the opposing hosts. The demoralisation, indeed, of the civilian, accentuated

[1] "The frequently quoted simile that war is like a thunderstorm, which clears the air under great convulsions, must certainly not be applied without reserve. The Thirty Years' War changed Germany into a wilderness and brought in its train a demoralisation without parallel; and our experiences in the Fatherland scarcely tend to foster the belief in the purifying effects of the last war (1870)."—Marshal von der Goltz in the *Nation in Arms.*

by later hard times, is a frequent aftermath of the emotions excited by War.

Our superhuman spectator might deride wars of this kind and the parasitic Governments or States for which the excessive sacrifices are asked. States are inferior to individuals—they are at best clumsy mortal organisations, whereas the individual, even though shedding a body, endures. Claims on their behalf, which do not make for the full and rich living of individuals, ought to be set aside.

Will the Great War admit of being "used" otherwise than to reduce or abolish the likelihood of future wars? Social reconstruction, enforced by need, seems an inevitable outcome. Should experiments in this direction succeed, a partial utilisation of it will have been accomplished. But is the expediting of social rebuilding at such a cost satisfactory? Ought a prairie fire to be kindled to boil an egg? Will the Great War have its uses?

There are, however, possibilities in connection with our superhuman's outlook which deserve passing mention. War and the oppositions of States generally may become vicious and ridiculous, so far as the interests of us human sentients are concerned. The individual, indeed, attaining full sanity, and liberated at last by the progress of scientific discovery, may seek to make an end of frontiers, patriotism, and States outright. So far so good. But human interests are not, perhaps, the last word in this matter. The game of terrestrial chess may subserve other purposes than our own; may entertain superhuman players. Further, the

planet's story has gained at least in *picturesqueness* at the cost of past struggles, failing which Universal History would have been flat, and this achievement has been worth, it may be, many passing curses, tears, and groans. Imaginal artistry has aims of which we dayflies, lost in our petty interests, are quite unable to take account; it is making reality on the great scale and not catering for our momentary pleasures and pains. We are bound to moot considerations of this sort. But, perhaps, we are presumptuous in supposing that our disputes concern the cosmos more than the combats of differently coloured rats.

Be this as it may, there is no call for us to stage voluntarily a spectacle of self-immolation. We need not worsen deliberately the ordeals of sentient life. And War, so far as our outlook extends, seems to be becoming sheerly bad.

On the partial ennobling of evil and its attendant pain in other quarters.

§ 6. The World-System escapes from the *primeval nightmare* by transmuting slowly itself and the sentients allied with it; conserving, on the whole, real values, and scavenging evil by suppression or subordination of it in novel results. "C'est l'avenir seul qui a été le grand objet de Dieu dans la création et c'est pour cet avenir seul que le présent existe" [1] —if by "Dieu" here you mean, not our finite Power of that name, but the Cosmic Imagination. The "fundamental evil" with the attendant pain was inevitable; and we are to expect to find it very gradually overcome, evolution in all its grand variety emerging in the process. Pain "used" in this creative work may be built into novelties of lasting

[1] D'Hauteville.

value, or, when this is not really achievable, left behind altogether. Let us consider some directions, other than mere organic evolution and War, in which pain has been made "useful" and ancillary to development of solid worth; worth such as might endure in some form or other when the *creative* time-process has closed in a purely *conservative* Divine Event.

We shall find this ennobling of pain unmistakably achieved in many quarters. We have now concluded our observations about Nature, and are on the borderland of a survey of animal and human sentient life such as is to occupy us in the next essays of this series. This section will serve to complete our discussion of the "first steps" toward the solution of the problem of evil, further ramifications of which will be dealt with elsewhere.

The ennobling of evil is a great reality, but it must not blind us to the truth that all evils are not susceptible of this treatment. Mill scourges "the complacent optimism which represents the evils of life as desirable things, because they call forth qualities adapted to combat with evils. It is only because the difficulties exist, that the qualities which combat with them are of any value. As practical beings it is our business to free human life from as many as possible of its difficulties, and not to keep a stock of them as hunters preserve game for the exercise of pursuing it." [1] Many of the difficulties, indeed, which confront man and animal in evolution, have called forth qualities, not only of no value save for passing needs, but

[1] *Political Economy*, Book v. chap. ii. § 6.

Untruth of the optimism "whatever is, is right."

utterly abominable. Optimism, in the sense that "whatever is, is right," is flagrantly false. Meliorism in the sense that finite life has value, and that it will have increasing value, rings true, but such life has to shed many evil-evoked qualities which would taint even the halls of memory. Very rash optimistic statements have been made about evil. "The first lesson of History is the good of evil" (Emerson), "the swiftest horse that bears us to perfection is suffering" (Eckhart), are pronouncements in point. Many of the evils in history, such as the persecution of the Albigenses, the collection of eyes by Persian tyranny, the ever-recurring famines which have tormented the Indian ryot, the abominations of religious practice in Phœnicia and Carthage and among the Aztecs, the martyrdom of lepers in China and India, etc. etc., have no kind of compensatory good to show. And Eckhart's lauded "suffering" is too often a source of degradation as well as a herald of better things. A man, harried by long conflicts with excessive sexual passion, is much more likely to descend than rise in the scale of existence. An unfortunate struggling against a lust of cruelty is much farther from perfection than a Plato who has never been troubled with it at all. Dismissing Emerson's and Eckhart's rash statements, we are entitled to assert only the *frequent* utility of evil, and happily we are in a position to say that creation has "made good" extensively in this respect.

Uses of pain.

Pleasure or happiness, the mark of free or furthered psychical activity, tends to the *conservation against change* of the experience which it colours. And this conservation or static attitude has to give

place to unrest in the process of creative evolution. If I am in the islands of the blest, why should I depart? Pains appear, therefore, in sentient life as important promptings toward change. Satisfied stone-age barbarians would have been as unprogressive as tortoises or toadstools. Had the ancient inhabitants of the Nile valley, says Winwood Reade, always had food in plenty, no civilised Egypt would have arisen. Difficulties, when not too great, drive men out of routine and feed initiative; hence it is not the communities favoured by soil and climate which have thriven the most. *Vexatio dat intellectum*; science and, of course, all industry go back to practical beginnings prompted by want; religion was cradled partly in fear, but partly, also, in a cult of allies held to be of use to the religionist in life's struggle;[1] philosophy, again, would surely not have dawned in Greece and India unless practical perplexities and mishaps had forced men to ask what manner of Power or Powers drive all the grim agencies of Nature abreast. Art, on the other hand, as shown in the first palæolithic drawings, derives directly from a pleasurable activity akin to play. It is essentially an effort to call a halt amid change; a halt in which man looks neither forward nor backward, but is lost in the enjoyment of a content valued for its beautiful self.[2]

In legal, political, and social evolution a very large measure of achievement has been motived by the avoiding of ills; and here details lie before

[1] This is amusingly seen in fetish worship and even in many hymns of the *Rig-Veda*, in which, says Barth, "the sole address to the gods is 'Here is butter, give us cows.'"

[2] *Cf.* Part II. Chap. II. § 24, on the definition of the beautiful.

us in plenty. We ought not to overlook, however, the large field in which unrest and pain have proved absolutely sterile for progress. Evils are not themselves big with the promise of good. In communities in which the "imaginal solution" and those virile enough to apply it are lacking, evils accumulate idly. Emerson's good of evil is certainly not discoverable throughout the annals of States. We find there just what we find in animal organic evolution, viz. spheres of more or less complete failure, and spheres where accomplishment, while striking, has fallen short of an ideal standard. The meliorist, as distinguished from the optimist view of creation, has to exclude "*logically necessary*" progress from its rendering of history.

Pains may contribute to the enrichment of character; the variety and depth gained marking a transformation of primarily evil experience in new contexts. There is a great field here for the making of novelty. Sympathy, again, which is valued not only for what it does but for what it is, brings folk together through their very pains. It suggests that insulated personality may not always endure, and that the insulation is even now breaking down. Guided by adequate knowledge, sympathy is the foundation of the higher morality and the mark of the true superman—the merely wise and powerful man and the mere saint being monsters. The ideal future state of sentients, however, is one of freedom from pains with which sympathy could be required. The most enduring, as also, perhaps, the last acquired, form of sympathy is the power to rejoice always and ungrudgingly with the happy. Most of us can feel for the victim of an accident; we should be

slower to show delight if some one had succeeded to £10,000 a year.

What about the evils and their comprised pains that are not built into novel creations of worth in which they are at once preserved and abolished? They do not belong to the conservation of values, and not being caught up into glory therein, do they die sheerly out of reality? The hideous and degrading pangs of some diseases, the sensations of a man devoured alive by ants, or tortured by lunatics of the Inquisition in the Middle Ages, are not, it would seem, of lasting value to a World-System which is to become divine. But are they utterly unredeemed evils in respect of the individual victims? It is idle, of course, to talk of complete compensations in such cases. You do not truly compensate any one by giving him a shilling after knocking him down; the obliteration of the original evil is not secured. At the same time we are bound to confront the problem as to how far evils, such as those mentioned above, are overcome, so far as they can be overcome, in the case of the individual. And this will have to be one of the topics of greatest importance in our next essay on the individual. So far we have been considering only "first steps" in the solution of the problem of evil. We have been concerned primarily with its *cosmic* standing as an aspect of a world-episode. We have, further, to deal with it as an aspect of the histories of individuals within that episode.

On evils that seem not incorporated and transformed in novel values.

We cannot ignore that task. The individual, as valued by other individuals, is sometimes discussed as if he were a negligible item in cosmic

Meliorism and the individual.

story. But, in respect of being conscious, he is the peer of the Cosmic Imagination itself. And the value of life must be shown in his destiny, in what he is here and now and *in what he is to become.* Meliorism, if it offers no prospects to the individual, has already despaired of its task and become pessimistic, *i.e.* content to say that conscious life, in that vast area filled by finite sentients, has no lasting value.

The final statement of meliorism, accordingly, concerns the individual, a retrospect and a prospect; and the continuation of this series of essays will take that form.

We can, however, conclude this book in a most hopeful spirit thus. This changing World-System, regarded as a whole, is clearly not the field of mere conflict and the implicated pain of thwarted development and decay. It arose from a purposive creative appulse, and it is the very intensity of the activity at work in it that has thrown off the antagonisms which mark its history. It has been a story in which, so far as animal and human sentients are concerned, pain has played a leading, often appalling, part. But there is an encouraging reflection suggested by this very prevalence of pain. Since the creative appulse was not blind, but the birth of a romance of the All-conscious Cosmic Imagination, then surely there will be no final issue that need be feared? Nature did not fall away from the primeval harmony, the "corruption of eternity" did not begin, to no ultimate spiritual profit. The very extent of the painfulness of life is an earnest of the triumph that is to come.

Explanatory Glossary of some Philosophical Terms used in this Essay [1]

A priori (in the regard of Kant's treatment of experience). Anything is *a priori* which conspires with sense-data to render experience possible and which is not itself derived from sense-data: *e.g.* space and the category of reality are conditions of my perception of a caterpillar gnawing a leaf, but, unlike the colours of caterpillar and leaf, they are said not to come to me through the gate of sense. According to Kant, *a priori* and *a posteriori* factors (the manifold of sense-stuff) concur in every experience.

Absolute, the. Absolutism. The Absolute has been used to mean infinite, unconditioned reality which is *above relations*. This statement, however, does not indicate the basic character of the reality in question which certain agnostics, indeed, have regarded as "unknowable." The Absolute of idealists, such as Hegel, Bradley, Bosanquet, means the "complete, perfect and finished" Whole of reality regarded as **Experience**—the Absolute Experience—which is above time and other relations. This Experience has been identified by Hegel with Truth or Reason; but Bradley treats Truth as only one of its fundamental aspects. Absolutism, as criticised in this essay, is the standpoint by which this timeless Absolute Experience, whether rational or super-rational, is identified with total reality or the Universe. *Cf.* pp. 86-128, 137-41, and elsewhere.

Abstract, Abstraction. Any aspect of reality at large or of a subordinate reality within it, which is attended to in isolation from other aspects, is "abstract." Thus Beauty is an abstract aspect of certain experiences which comprise other aspects which it qualifies; Resistance is an "abstract" aspect of the far richer realities, perceived as stones, books and trees. The **Fallacy of Abstraction** consists in regarding such abstract

[1] This Glossary leaves many terms in philosophical literature ignored, and is merely intended to assist the general reader who comes to difficult discussions without previous knowledge of metaphysics. I have no space to extend it further, but trust it may prove helpful.

aspects of realities as self-sufficient entities which exist in and by themselves. An attempt to regard Beauty (p. 233) as the source of the world illustrates this kind of fallacy.

Activity. *Cf.* pp. 187-203 on Activity as conservative and creative.

Adaptation, as used in accounts of the origin of species, has two meanings easily, and often conveniently, confused. *Cf.* p. 543.

Aesthetic. (1) An inquiry into the conditions and import of Fine Art. (2) As **Transcendental Aesthetic,** Kant's inquiry into the conditions which render possible sensible phenomena as intuited in space and time.

An Agent is a distinct, relatively independent centre or source of change. "A natural agent," of which Mill speaks, is a producer of change in that aspect of our World-System which is called physical Nature. For the origin of "natural agents," which are sentient, *cf.* pp. 458-63.

Agnostic, Agnosticism. The agnostic, as Huxley calls him, is the man who refuses to make assertions as to what may lie beyond phenomena such as our experience acquaints us with. The "agnostic," in this sense of the term, may be contrasted with the "gnostic" mystics of early Christian times, who claimed a genuine knowledge, going beyond ordinary experience, of the divine. For the phases of Agnosticism, *cf.* pp. 61-6.

Altruism. An ethical ideal of devotion to the well-being, temporary or lasting, of others. **One-sided:** an enlightened egoism being equally moral and, indeed, indispensable.

Anabolic, Anabolism. *Cf.* p. 535. Terms referring us to the superiority of certain types of organisms, and even of a sex, in the matter of storing "Energy." **Catabolic, Catabolism,** denote a superiority in the power of breaking down complex compounds and expending "Energy" to profit. Thus animals are more catabolic than plants, men than women.

Analytic, Kant's. "The Transcendental Analytic" (the first part of the "Transcendental Logic") deals with the doctrine and vindication of the categories. See **Categories,** and also pp. 92-9.

Analytic and Synthetic Judgments (Kant). A judgment that affirms a predicate contained in the meaning of its subject, or merely analyses it, is "analytic"; if it adds a new predicate to the subject, "synthetic." "Matter resists" is analytic in this sense; "Matter is a concept that has always tasked philosophy" is synthetic.

Anthropomorphism (in the regard of theistic hypothesis), the practice of conceiving God after a human model as wrathful, jealous, vindictive, as a narrow personality, etc.

Antinomy (Kant). A pair of propositions, each to all seeming valid, which assert contradictory predicates of the same subject. *E.g.* the world had a beginning—the world had not a beginning. Kant treated of four alleged great anti-

nomies. But antinomies appear in all objects of thought whatever, urges Hegel. In everything we can point to contradictions or opposite attributes. His dialectic is based on this alleged ubiquity of contradictions.

Appearance. May be used in two senses: (1) That of a more or less specious show contrasted with Reality. Thus the changing sensible flux was contrasted by Plato with the Ideas. Thus "contradictory" motion, evil, space are contrasted by Bradley with the Absolute. (2) As meaning anything that *appears* in our experience or in the larger regions beyond it. Such Appearances, *e.g.* colour, sound, space, and time, are not unreal, but may be regarded as modes of Reality which is genuinely revealed in these ways. The fact that this green and the space-order, in which it shows, are not *self-sufficient* does not exclude them from a place in the real Universe. *Cf.* pp. 288-9 and pp. 328-9. Reality itself, in a word, can "appear" even to finite sentients.

Apperception. There is always an amplifying of sense-data in the process of perception. I perceive a fire, though the sense-datum may be only a red light showing against the dark. I perceive with the aid of my past. This amplifying, this richly personal way of meeting sense-experience, is referred to when we use the term "apperception." Apperception shows also the work of creative imagining; the complex object apperceived being no mere collection of sense-data and distinct, loose "ideas," but a novel creation in which sense-experience and revived "dispositions" coalesce.

Appulse, the Creative. (*Cf.* Part III. Chap. IV.) The drive initiating creative evolution of our World-System or one of the innumerable others.

Associationism. The view that, given certain sense-data, and certain laws of revival and association of the separate, distinct "ideas" traceable to them, all the rest of our psychical life can be derived from these antecedents. "Mental chemistry" characterises certain associations, urges Mill, the combining "ideas" generating complexes unlike themselves and in which they disappear. The function of this view has been, not to solve a riddle but, to further discussion.

Atheism. Hypothesis that the Ground of phenomena, regarded as a whole, is not conscious. Is compatible with belief in a *finite* god or gods. May be idealistic, materialistic, etc.

Atomism. The view which resolves reality into a plurality of atoms or very small units of "extension" and "resistance." **Psychical atomism** resolves it into a collection of elementary psychical units.

Attraction-complex. A natural agent which comprises two or many subordinate agents drawn together by mutual furtherance. On Attraction, *cf.* pp. 503, 516-17, etc.

Awaring. I "aware" a content when I feel a burn or see a colour. On awaring as active, *cf.* Part II. Chap. II. § 2, "Consciousness," and § 12, "Activity."

Beauty. "Any content or content-complex is beautiful, if I can rest in it with a joy satisfied within the limits of the complex." (Part II. Chap. II. § 24.)

Catabolic, Catabolism. *See* **Anabolism.**

Categories, the Kantian. Pure or "judging concepts" regarded as among the *a priori* conditions of experience. *Cf.* pp. 92-101. Not to be confused with the categories of Aristotle or Mill (p. 164).

Causa sui, or "cause of himself." A scholastic description of God made use of in the system of Spinoza, who, however, does not mean that God is His own result in a time-succession. (*Cf.* p. 240.) Hegel also speaks of the Absolute "as result," but in a *logical* regard only.

Causation. A cause, according to Mill, is the "antecedent, or the concurrence of antecedents, on which it [the event] is invariably and unconditionally consequent." (*Logic*, Bk. III. ch. v. § 6.) Unconditional here means not conditional on the occurrence of other antecedents. On this difficult problem, *cf.* pp. 343-76, 467-73. "Cause," observes William James, "is an altar to an unknown god, an empty pedestal marking the place of a hoped-for statue." We have sought to supply the statue.

Chance. *Cf.* pp. 377-85. "Chance" directs us to the fact that there are happenings in the detail of world-changes neither expressing a wide purpose nor derivable from rigid laws, but illustrating a spontaneity imaginal in character.

Cognition. Certain experiences have been regarded as "knowing" things, and as contrasting thus with "mere" feeling and conation, have been labelled "cognitive." But "cognition" overlaps all minor distinctions of this kind. Even feelings and the conative attitude are "cognised," and the "cognition" of them is not a thing apart from these experiences themselves.

Conation. A name for the unrestful or striving aspects of conscious life, *e.g.* volition, impulse, instinct. For Activity and Will, *cf.* pp. 197-203. It is important not to exaggerate aspects of experience, *e.g.* cognition and conation, into independent co-ordinate powers. Conscious life is always active, but not "striving" unless obstacles are being overcome.

Concept. Conceiving is no special "faculty" isolated from others. The concept is a substitute-fact created by imagining to "mean" something else for which it, then, stands in our judging. Concepts are always "*of*" realities other than themselves. When these implied realities do not exist, they may be commanded to exist, and we, then, have the **Command-Concept** (Part I. Chap. II. § 4), which is of great importance.

The concept, isolated from judgment (*see* **Judgment**), is, strictly speaking, a fiction. It is not the unit of which judgments are made, itself, indeed, comprising judgments. The concept, as Sir W. Hamilton said, is a fasciculus of judgments. But these latter, fully incorporated in it, are taken for granted. The judgment or proposition, on the other hand, seeks assent, asserts a *claim* to be taken as true. The concept, as it lives in judgment, is one of the forms in which reality attains relative rest in the time-process. But concepts change, if slowly, and some even quite rapidly. You are invited to change many in this work.

Consciousness. The awaring activity which is the *continuity* of this imaginal Universe. *Cf.* Part II. Chap. II. § 2, pp. 166-87.

Content. In the most general sense anything of which there is awaring; which is present to conscious activity (p. 167). The continuity of such Content is the Universe or Cosmic Imagination (p. 173). In the case of finite sentients, Content means anything which occupies, or can occupy, a place in the field of their experience. *E.g.* the contents of my experience now include sounds, scents, warmth, desire for a cigar, landscape-perceptions and a backache.

Content-complex. Any mode of content having distinct or distinguishable aspects.

Contingency. Hegel, on p. 379.

Continuity. *Cf.* pp. 333-4.

Contradiction, Law of. "A cannot be both B and not-B"; also expressed, "a thing cannot be other than itself." *Cf.* pp. 277-89.

Cosmic Imagination, C.I.; or Imaginal IDEA. Ultimate all-embracing reality, so named because it resembles at a distance (*si parva licet componere magnis!*) what in ourselves we call imagining. It shows two forms of activity, the Conservative and the Creative. Though superpersonal It might be called God, but we have reserved this term for another use, viz. to denote the great overruling finite power allied with our particular World-System. There may be indefinitely many such Gods.

Cosmological Argument. The attempt to infer the scholastic God (the "sum-total of all Reality and Perfection") as a necessary Ground implied by the existence of a world (p. 55).

Design or Teleological Argument, the. Seeks to infer the scholastic God from the evidences of design present in the world (p. 56). *See* **Teleological.**

Desire. There is (1) conflict between an ideal field not realised and the actual present which blocks this realisation. This situation of thwarting is attended by discomfort or worse—the "pangs of desire." A world-level on which the realising of ideal fields was unobstructed would be free from desire. Desire is (2) sometimes used in a narrow sense as meaning

sexual desire: the accompanying tension being here strongly marked.

Detension. Bergson's account of how "consciousness" *detends*, or passes from "tension" into the natural order and space, is noted and criticised, pp. 453-8.

Determinism. The view that all changes, including those classed as phenomena of the human will, are necessary events in the working of rigid laws.

Dialectic, the Hegelian. (*Cf.* pp. 101-3, 120-5, 459-60, 471.) The so-called universal "principle of movement," an alleged irresistible power manifest throughout all domains of reality. Contradiction—the conflict of opposites—says Hegel, is above all that which moves the world. The *imaginal* "principle of movement" is the substitute for dialectic offered by us.

Differentiation. The becoming different of a thing from other things, and of its parts or aspects, also, from one another. A "self-differentiating system" is an ordered whole, the aspects or parts of which become more and more different from one another. *See* **Integration.**

Dispositions. Deposits from past experience said to be revived, to enter into, and modify, new experience. These dispositions, blending intimately with the fresh sense-experience, show a *plasticity* of adaptation which is veritably creative. We may say that there is a setting *improvised* in the process of apperception; creative imagining is at work even here (p. 157). *See* **Apperception.**

Dualism. View that the world is a manifestation of two principles, usually stated as Spirit and Matter, or Spirit and Energy.

Eclecticism. The selecting (which may follow a period of construction which has exhausted genuine philosophical initiative) of features from several different thought-systems and building a new whole therewith. The abuse of this practice is **Syncretism**: an uncritical mixing, or tossing together, of doctrines devoid of true connexion.

Eject. "A conscious experience like his own which man *ejects* or launches imaginally into perceived things" (pp. 59-60). Ejects may or may not correspond with reality.

Electron. A name given to the supposed ultimate unit of "electricity," or minimal indivisible "electric charge." (*Cf.* pp. 323-5.)

Empirical. "Empirical" knowledge has been contrasted with an *a priori* knowledge which is not derived from experience. In Kant's view, however, experience itself is conditioned by *a priori* factors. It is important to note that, on the lines of the imaginal hypothesis, we must respect experience and learn from experience, which, indeed, contains a "given" provided by the Cosmic Imagining itself. On the other hand, this "given" is "apperceived" by us, each in his

own way, and can be supplemented indefinitely by novel creative thinking of our own.

Empirical fact. A fact present in experience, an appearance of which there is, or has been, awaring, as there is now of this colour and that noise.

Empiricism, Radical. Used here to mean that truth (as contrasted with mere truth-claim) must rest, in last resort, on *experience* of the realities about which statements are made.

Energy. A very important imaginal creation or concept used in science. (*Cf.* pp. 43-8, 313-20, 419-25, 457, 487-90, 534-36.) Has been defined as "capacity for work" or as "everything which can be produced from work or which can be transformed into it" (Ostwald). Taken too seriously, it leads to bad metaphysics.

Epiphenomenon. Conscious process is sometimes regarded as a mere accompaniment of physical process, without any causal influence on its own successions or on those of the physical process. It exists as an inert aspect of the physical phenomena, is an "epiphenomenon."

Epistemology. Theory of knowledge which is implied by any Ontology or Metaphysics which inquires into the general character of Reality, and the standing of its more important "appearances."

Ether, the. An alleged space-filling medium, connecting all natural phenomena, usually held to be continuous and supposed to possess certain simple and uniform qualities which can serve at need to account for the genesis of the perceived sensible order. An imaginal creation (or creations) endowed in practice with contradictory properties (pp. 320-4).

Eudaemonism. View that the end of reasonable action ought to be the well-being of oneself and others. This does not imply the *hedonistic* ideal of a pursuit of the mere abstraction "pleasure" or "happiness."

Evolution. A vaguely used term, too often meaning the derivation of the higher and richer from the lower and poorer. *Cf.* pp. 411-15, "What is meant by Evolution?" Creative Evolution is discussed at length in Part III.

Experience may mean (1) the Absolute Experience as in the writings of some idealists; (2) the inward and outward present, in which I am aware of colours, sounds, stocks, stones, dreams, toothache, emotions, volitions, etc.; and more narrowly (3) the sensible perceptual field only. It was in this sense that the "sensationalists" used the term when they derived our psychical life from "sensations" (which left behind them somehow distinct "ideas" elaborated anon by laws of association). "Sensations" of this sort are abstractions of analysis of no value to serious psychology or metaphysics. The perceptual field is a continuum in which "sensations" merely stand out.

No theory of our psychical life must overlook (1) that very much of the content of our mature conscious life is obviously not derived directly from crude experience—novelties abound; and (2) that experience, *as it comes originally*, presents a great problem, certainly not to be solved on the lines of atomistic "sensationalism."

Fall, the Metaphysical. The descent of the World-Idea or Grand IMAGINAL into time-succession and conflict. (*Cf.* pp. 458-9, 460-6.)

Feelings. An ambiguous term sometimes meaning (1) the contents of experience, Mill's "feelings or states of consciousness"; (2) sometimes pleasures and pains only. There are other uses. The context is the only guide.

Finalism. The view that regards the world as expressing a plan merely realised in the said world. Bergson criticises belief in a plan ordained *completely* in advance, and merely executed in the world-order.

Flux. The "flowing" of events in time-succession.

Force. A concept the "body" of which consists of our feelings of muscular effort. It is an imaginal creation and does not stand for any independent entity in Nature. *Cf.* pp. 41-3, 308. For "Vital Force" *cf.* pp. 555-6.

God. A word of many meanings (p. 567). The chief that concern us are: (1) the "sum-total of all Reality and Perfection" conceived as *personal*. This is the *scholastic Theism* criticised, pp. 49-61. (2) Absolute superpersonal Experience. (3) A finite, but very exalted power, the conscious life of a total particular World-System. (*Cf.* pp. 509-13.) (4) Any superhuman agent of exalted wisdom, beneficence, and power.

Ground. The Ground of phenomena is that which includes the phenomena and is wider than them. Thus the World-Ground of Schopenhauer is Will, of Hegel the IDEA, of Buchner Matter, of Spencer the "Unknowable," of this essay the Cosmic Imagination or Imaginal IDEA. (*Cf.* Part I. Chap. I. "On the Ground of Appearances or Phenomena.") Leibnitz, in explaining phenomena, was a pluralist in that he supposed not a Ground but Grounds, the infinitely many monads. Each contains the phenomena of which (when conscious) it is aware.

Ground and Consequence, Principle of. *Cf.* p. 350.

Habit. A course of psychical action tending to repeat itself or marked by constancy. A form of conservation amid creative change (p. 468).

Hedonism. The ethical view which labels actions right if they subserve the highest possible degree of pleasurable living of ourselves and others.

Heteropathic Laws of Causation (Mill's). *Cf.* pp. 361-3.

Hypothesis. *Cf.* Part I. Chap. II. §§ 1, 2, 3, 4, 5, 6. Mill points out that hypotheses are limited by *imagining*, but he has missed the complete truth about them.

Idea. *Cf.* **Concept.**

IDEA, the. The IDEA of Hegel is the Universe regarded as Reason. The IDEA of this essay is the Universe regarded as Imagination. Both views treat reality as spiritual, *i.e.* as of one tissue with what we call conscious experience; but the one holds that our reason, the other that our imagining, resembles the ocean of the infinite most closely. (*Cf.* Part II. Chap. I. §§ 1-4 and elsewhere.)

Idealism. The doctrine that my or your experience *samples* the character of reality at large, of the Universe. (Part I. Chap. IV. § 1.) It denies that there is any reality which is different from what we know as contents of experience. It has various forms: nihilistic (p. 20), psychological (p. 62), subjective, etc. There is no call to contrast it with the metaphysical Realism which asserts the reality independent of us of the perceived things, etc., of which we are aware. There is an "objective" or realistic Idealism in evidence (p. 70). For the general case for Idealism, *cf.* pp. 69-75.

Ideo-motor action. Action sequent directly on "occupancy of the mind" by an idea or perception. James regards this kind of action as the basic type of "willing." (*Cf.* pp. 202-3 for an important consideration.)

Illuminism. A term meaning the state of "light" attained by way of direct intuition, as contrasted with discursive reasoning. The knowledge implied appears, it is claimed, as *directly* does a colour or sound. (*Cf.* Introduction, § 5.)

Imaginals. (*Cf.* pp. 392-8, 442-4, etc.) These take the place of the "Universals" of content so famous in philosophical controversy.

IMAGINAL, the. Synonym for the Grand Imaginal or World-Idea, *i.e.* the idea, or total single thought, which developed into our particular World-System. *Cf.* pp. 460-1. The **IMAGINAL** may be regarded as the "body" of God—of the finite God of the System (p. 475). *See* **God.**

Imaginal Principle of Movement. *Cf.* pp. 460, 463-4 and elsewhere. The Universal Dynamic replacing Hegel's dialectic.

Imagination, Cosmic. *See* **Ground.** The ocean of the infinite, at once conservative and creative, conceived as analogous in character to our own *imagining*. Also called the "C.I." or Imaginal IDEA as contrasted with the Hegelian *Logical* IDEA. *See* **IDEA**, the.

Impact. *Cf.* pp. 310-13.

Indeterminism. The view that events in Nature, human and animal life, or in the world-order regarded as a whole, are not the necessary result of rigid causal laws with a theoretically predictable output.

Indifference. The "indifference" of subject and object is that which is neither one nor the other but the unity of both. Schelling's original Absolute was of this character.

Infinite, the. *Cf.* Part II. Chap. III. § 7.

Initial Situation, the. The state of the World-Idea or Grand Imaginal before the Metaphysical Fall.

Innate ideas. Ideas held to be present to the "mind" independently of experience.

Instinct. Action, common to members of a species (either in part or quite independent of teaching), which resembles the pursuit of ends, but which is accompanied by no clear, sometimes by no, purposive representation of the said ends. The young bird's instinct to fly may be furthered by its parents, and show some intention to reach a given point. The instinct of a wasp which paralyses crickets to feed its larvae is independent of teaching, and may also be devoid of conscious purpose. But instincts, which lead to *repeated* actions, will surely be attended after a while with some representation of the ends to be sought. A bird pairing and nesting for the second time is not likely to be quite without suspicion of the results of its action. Human instincts merge rapidly into purposive conduct. (*Cf.* for Bergson's view of instinct, pp. 560-5.)

Integration. Spencer's term for the concentration of "Matter" into relatively discrete wholes and sub-wholes during Evolution. (*Cf.* p. 523.) This Integration is accompanied by Differentiation, or the becoming different of the wholes from other wholes, and of their parts or aspects from one another. The history of an egg with birth of a chicken furnishes an illustration.

Intellectualism. Sometimes (1) a label for standpoints which emphasise *a priori* factors in experience, *e.g.* the "intellectus ipse," said by some to inform elements drawn from "sense." (2) The attitude which over-accents the importance of rational thought in the Universe, testing all alleged reality by "intellectual" criteria which may be arbitrary.

Intuition, Intuitionism. A "truth of intuition" for Mill is one ascertained by *direct awaring*, as I aware the colour of this table. It contrasts with truths (or truth-claims) reached by *inference* from other truths. Alleged "truths of intuition" are often asserted, however, by popular writers, religionists, mathematicians, mystics, etc., which ignore, or falsify the deliverances of, direct experience, and conflict with one another and even existing knowledge. "Intuitions" of this sort have brought the term into disrepute. The point of importance is to know what truths are or can be directly awared, as I aware a colour, pain, or the common features of ordinarily perceived things. (See "Illuminism," Part I. Introduction, § 5, "Intuition and Hypothesis," for the procedure desirable in checking alleged intuitions.) Schopenhauer and Bergson attach weight to "intuitions" as conveying occasionally

important general truths, and they are right. But we must go very warily indeed.

The "intuitive truths" of writers such as Whewell are held to possess a peculiar certainty in that they acquaint us with *a priori* ideas, *e.g.* mathematical, directly apprehended, and not derivable from sense-experience, as are, for instance, our beliefs about the habits of frogs or the doings of rate-collectors. Here we are on very debatable ground. We repeat that alleged "intuitions" of general truths require very careful examination. Self-deception in this domain has been very frequent.

Judgment. A judgment of perception, *e.g.* "I see red," which merely emphasises or "selects" an aspect within reality as *directly present* to me, is one of Mill's "truths of intuition" which cannot be false. But judgments, not thus guaranteed, make only truth-claims "about" reality, and may be true or false. "Man existed in Miocene times" is a case in point. Judgments, not concepts, are the "units" of thinking. The meanings of Judgments, categorical, hypothetical, affirmative, negative, etc., cannot be discussed satisfactorily apart from psychological considerations implicating the experients who confront or make them. (*See* F. C. S. Schiller, *Formal Logic*, pp. 134-51, "The Forms of Judgment.") The verbal expression of the Judgment is the Proposition. But, as Bain observes, the term Judgment takes account of the "*subjective element of affirmation*, the implication of the individual mind of the affirmer in the process," which "implication," let us add, surely confirms the view that a psychological treatment of Judgment cannot be ignored by Logic.

Kinds, natural. Classes whose members differ from members of other classes in respect of radically distinct attributes and the indefinitely many subordinate attributes implied. Colours and sounds, lions and men, are members of such classes.

Law. (1) A command of a sovereign authority, the State, enforced at need by punishment. This legal sense contrasts with (2) a uniformity found in Nature or our own sentient life. But there are Laws which we dictate to reality as well as those observed there. (*Cf.* pp. 389-92 and elsewhere.)

Logic. For Mill (1) the "science of proof or evidence," a *human* device for checking the correctness of inferences, deductive and inductive, but having also a certain theoretic interest of its own. Schiller would replace abstract formal logic by "psychologic," *i.e.* a logic which makes appeal to psychology freely. We may suggest this definition of Logic, "a branch of psychology treating of the processes which issue in inference, and having special regard to the exigencies of proof." (2) For Hegel Logic deals, above all, with *cosmic* thinking—that of the IDEA (*cf.* pp. 86-126), which he regards as "rational."

Hence Logic is equivalent to Ontology, the science of Ultimate Reality itself.

Looseness of things. *Cf.* "Continuity and Looseness," pp. 333-6.

Love, Cosmic. *Cf.* Part II. Chap. II. § 25.

Mass. *Cf.* pp. 305-10. A "co-efficient" which *we* introduce into calculations (Poincaré).

Materialism. The view that Ultimate Reality is "Matter" in movement. (*Cf.* pp. 36-41.)

Matter. A concept, *i.e.* imaginal invention, which substitutes, in our thinking, an entity—"extended resistance"—for the sensible reality which we actually perceive. Matter, says Mill, is the "element of resistance in the sensible world." But nothing *merely* resists and fills space. And resistance is not an absolute quality, but implies the relations of agents which would not be "resistant," if existing by themselves. (*Cf.* pp. 305-7.)

Mean. (1) A word or image means what it stands for or represents in our thinking. (2) Any given phenomenon is said to "mean" another phenomenon with which it is found closely connected: *e.g.* War means waste of capital.

Measure, Divinity of. *Cf.* pp. 445-6.

Mechanism, category of. The way of thinking of reality in terms of mechanics. *Cf.* pp. 37-8 and 294-304.

Meliorism. View that finite life has a value which, whether satisfactory to us now or not, is being enhanced. All will be well. Optimism asserts roundly that life's value even here and now compensates for its ills, but, in respect of great numbers of sentients, this is an obviously false statement. Pessimism avers that life has no sufficient value, and that such value as it has tends to become less and less.

Metaphysics. Aristotle's First Philosophy. Here it means an inquiry into the character of Ultimate Reality—of the Universe. Is experimental. *Cf.* pp. 1-2. We are all metaphysicians, even the agnostics (pp. 61-2).

Mind-stuff, theory of. *Cf.* Part I. Chap. IV. § 3. An attempt to make "mind" the foundation of things and then to treat it as if it were a "matter" consisting of "bits."

Moments (in the Hegelian dialectic). Aspects of the triply-articulated movement of Thought, not to be treated as separate facts, but as pulses in an overriding reality. *E.g.* The Idea, and the Idea as Nature, are "moments" in the Absolute Idea (*cf.* **Dialectic**), not existents in their own right.

Monad, Monadology. *Cf.* Part I. Chap. IV. § 2, "Leibnitz and the Hypothesis of the Monads." A monad is a centre of conscious life (actual or virtual) existing in self-contained singleness without dependence on other monads, and containing an infinity of being within itself.

Monism. View that the Universe is "one." It has various forms, may be idealistic, materialistic, etc.

Motive. That which *moves*, or prompts us, to action in conscious volition.

Multiverse. Reality conceived as consisting of indefinitely many independent realities.

Mutation. The sudden appearance of a variation, or of several variations together, in the history of a species.

Mysticism. A word vaguely used. Mystics have been described as seeking to apprehend God by direct insight. But, since there are mystics who believe, others who do not believe, in a personal God, the statement must be interpreted with caution. "God" is a word of many meanings and correspondingly useful to vague writers. (*See* **God.**) The mystic (shall we say?) has his ideal goal in expansion into the experience of the Cosmic Imagination. But he has usually subordinate interests; and, indeed, many mystics seem to be occupied mainly with other-worldliness and psychical research. (For the failures of mystics, *cf.* pp. 145-7, 212-15, etc.)

Nature. *Cf.* Part III. Chap. I. May include much that is asserted of it by Spencer, but is also very much more. The Evolution of Nature is discussed in Part III.

Natura naturans. A name for the active creative power manifest in things. The C.I. as creative, as we should say.

Noetic Pluralism (James). A pluralism the ultimates of which are of the character of "mind."

Notion. The Notion of Hegel must not be confused with our workaday concepts—the "snapshot" concepts of Bergson. (*Cf.* p. 89, and the section on Hegel.) The Notion is Thought in its eternal essence.

Noumenon, Noumena. Kant's veiled reality or realities (Things-in-themselves) lying beyond our knowledge, which is confined to phenomena or Things as they appear to us. *E.g.* yon tree shows colours, fills space, and causes changes; the noumenon is not coloured, in space, or the cause of events. This latter view as to its not being a "cause" is not consistently maintained (*cf.* p. 97).

Nuclears (p. 495). The qualitative "radicals" of pre-chemical inorganic evolution. A sub-electron, translated into psychics, would be a Nuclear. Called so because they are nuclei round which the Evolution of Nature complicates.

Object. *Cf.* **Subject.**

Objective world. (1) "Objective" may be a term applied to experience which sentients confront in a "universal and necessary" way common to them all. In this sense Nature is "objective" for Kant (p. 94), not in the sense that it is *independent* of the experience in question. (2) An "objective" world may mean a world independent of the finite experients who, in perceiving, become aware of it. On the lines of our

hypothesis Nature is independent of your or my versions of it, but not of the experience of the C.I., of which it is part. In this experience it is only content such as a fancy or reverie is in ours; an "object" only in that it is *noticed*, not in that it confronts the C.I. *as a radically opposed* "*other*."

Ontology. *Cf.* **Metaphysics.**

Ontological Argument. Infers God from the concept of Him we are supposed to possess. (*Cf.* pp. 54-5.)

Optimism. *Cf.* **Meliorism.**

Panlogism. *See* **Rationalism.**

Pantheism. A view teaching the *immanence*, overriding all distinctions, of God in the World-System. To emphasise thus immanence, to the exclusion of transcendence, is to look at reality with one eye.

Past, the vanished (pp. 252-6). That which has "passed" into the *conservative* grasp of the C.I. The Past seems alterable.

Pellations (p. 514). A word used to denote "repulsions" without suggesting *why* the "repulsions" take place.

Penetration, Interpenetration. The mingling in one another's being of psychical contents or agents in a psychical Universe. A simple case is that of two "atoms" said to gravitate together; their mutual influence points to their presence in one another at any "distance" such as we measure by symbols. Cosmic Space is the seat of ceaseless unrest due to such penetrations, with which, also, the causal dynamic is bound up. (*Cf.* Part II. Chap. V. "Causation.")

Perfect. "Thoroughly-made." A "perfect" world is one existing in such fashion that no effort of *imagining* could make it better.

Pessimism. *Cf.* **Meliorism.**

Phenomenon, Phenomena. *Cf.* **Appearance.** Anything that we distinguish and notice in the inward or outward present is a "phenomenon." Thus we talk of the phenomena of light, reasoning, emotions, glaciers, social evolution, etc. For **Phenomenalism,** see p. 62.

Philosophy. A whole way of contemplating the fabric of knowledge about the Universe, open to those at once cultured and unmastered by traditional beliefs. (*Cf.* p. 1.)

Pluralism resolves the Universe into many or infinitely many independent ultimates. It has various forms.

Polytheism. The cult of many Gods. A possible development of the future. (*Cf.* pp. 451-2.)

Positivist. The Comtean who exalts positive empirical knowledge and its utilisation for social needs and deprecates speculative metaphysics. He can be classed, for our purposes, with the agnostics (pp. 61-6). His statement that there cannot be positive knowledge about Ultimate Reality is itself metaphysics! It supposes Reality to be such that it cannot be known by us.

Pragmatism. "The pragmatic attitude," observes Dr Schiller in a letter to the writer, "is essentially that which is not satisfied with 'ideas,' speculations, systems, beliefs, but insists on bringing them to the test of things (*πράγματα*) they lead to, if taken as true and acted on, viz. their 'consequences.' But the *testing* is more important than the 'consequences.' Hence the distinction between 'truth-claims' and validated 'truths' discriminated from errors is vital. As every claim has to be further tested the pragmatic attitude is essentially *experimental.* Every thought, when actually thought, is an experiment, every inquiry is a question." In this sense of the term the "*World as Imagination*" is pragmatic; its truth-claims are offered simply as experiments. For our view of Truth cf. **Truth** and elsewhere. Philosophical truth rests on imagining in so far as this agrees with imagining on the cosmic scale. Dogmatism is absurd, since much of this philosophical imagining has, perforce, to be "experimental."

Pre-established Harmony. Leibnitz's monads, which do not act on one another, show a harmony of changing of divine ordaining. It remains obscure how the God-monad influences these subordinate monads.

Primary qualities. Locke contrasted the alleged "*primary* qualities" of natural objects (credited to them on the evidence of our experiences of touch, extension, resistance) with *secondary* or derived qualities, colours, tastes, warmth, etc., which have no reality outside our experience of them. It is these "primary" qualities which are built into the imaginal creation, "Matter," which we use in *thinking about* things in a mechanical regard.

Psychical, Psychics. Anything is psychical in character if it is fundamentally akin to the contents of our own conscious experience so-called. To say Nature is psychical in character is to say that it resembles these contents in being part of experience—in this case of cosmic range.

"**Psychologic**" (Schiller). *See* **Judgment, Psychology,** and **Logic.**

Psychology. The science of processes of experiencing noted as they occur, irrespective of their truth or falsity, goodness or badness. The science of such processes, in so far as they concern correct inference and operations subsidiary to such inference, would provide the humanist logic of the future.

Quantity. That aspect of reality which interests us when we ask "how much" water is in the jar or how sharp is the toothache. *Cf.* pp. 336-7.

Rationalism. (1) The attitude which decides the truth or falsity of disputed statements, religious, ethical and metaphysical included, on the lines of strict reasoning, ratiocinative and

inductive. This led historically to the French and German Enlightenment of the eighteenth century, and entailed a débâcle of traditional belief. (2) The metaphysical standpoint which identifies the Universe with REASON, otherwise known as Panlogism.

Realism. Metaphysical Realism asserts the reality independent of ourselves of the perceived things of which we are aware. (It is not necessarily hostile to Idealism, which merely asserts that the Universe is akin in character to our experience.) One form of it ascribes this independence, not only to things perceived, but to things present to our inward experience, *e.g.* mathematical "entities." Such Realism may take many forms.

Reality. Prof. J. S. M'Kenzie in *Mind*, Jan. 1914, credits this word with seven meanings. (1) That which has a place in the Universe. (2) "Definite existence" in the order of ordinary human waking experience as distinguished from dreams, etc. (3) Truth or validity, $2+2$ really $=4$. (4) Positive as opposed to negative. (5) In an intense sense as "degree in which anything occupies a place in some order"—its distance from zero of being or negation, *e.g.* a real pain. (6) That which is actual here and now, "as opposed to the potential or latent." (7) The substantial or independent—"real in a sense that will hold universally or without qualification."

Reality, degrees of. Bradley's Absolute Experience, which includes all conditions within itself, is said to be completely real. The more self-sufficient is any finite appearance, the less it is determined from beyond itself, the higher is the "degree" of its reality as judged by the standard of complete reality, the Absolute Experience.

Recept. Romanes contrasted recepts or generic images, such as animals and we also possess, with a concept in which the common features are generalised and attended to as such. The Recept lies on the road between primary experience and the concept proper. It is the *use* we make of it as a substitute-fact which counts.

Relations. *Cf.* pp. 337-42.

Relativity of Knowledge. A phrase often vaguely used, leaving it uncertain whether the "relativity" meant is that of knowledge to a knower and what is known, or that of things known to one another, or both. All knowledge, and all the reality which it concerns, must comprise relations. To know the Cosmic Imagination fully would be to aware an infinitude of comprised "relations." To be compelled to know such "relations" is in no sense to have to forgo the hope of attaining a valid metaphysics. Knowing them is part of the metaphysical quest.

Religion. *Cf.* pp. 289-90. Defined here as "devotion to what is believed to be the most perfect reality experienced."

Schematisation of the categories. *Cf.* p. 94.

Scholastic Theism. Belief in a "sum-total of all Reality and Perfection" regarded as a personal God. Criticised, pp. 49-61.

Secondary Qualities. *Cf.* **Primary.**

Sensationalism. View that our psychical life is derived, in last resort, from "sensations," the "ideas" deposited (somehow) by which are revived and elaborated by laws of association. These "sensations," which are really *aspects of imagining* as it occurs in the *continuity* of the world-stream, in which we and our nervous systems float, are treated as entities which give rise to separate, distinct "ideas." The contention is grotesque.

Solipsism. The view which confines a sentient to knowledge of its own perceptions and ideas; leaves it in a solitude awaring nothing but its own contents.

Spiritual. (1) That which is akin in character to conscious experience as we know it. *E.g.* a "philosophy of Spirit" interprets Ultimate Reality as akin to such experience. (2) That which approximates to ideal wisdom, goodness and beauty, as contrasted with crude sentient life characteristic of lower psychical levels incidental to the Metaphysical Fall.

Subject. Subject means (1) the term of which the logical proposition asserts its "predicate." (2) **Subject and Object**—or rather objects—are distinctions within a stream of experience such as I call "mine." On the one side this stream reveals the flowing of the Cosmic Imagining as when I perceive a landscape or the starry heavens. On the other it exhibits the effort of reality to crystallise or set, as it were, into a novel Thing—the Self-Thing—even amid the flux. This setting takes place round a core of relatively stable organic sensations, abiding purposes, etc., and the Self-Thing then shows a reactive dynamic of its own even in the manner in which it "apperceives" fresh incoming experience. This *conservative* Self-Thing is, nevertheless, eroded by *creative* change, and alters so that at sedate fifty I am at once the same and not the same as the boy who robbed orchards and gorged jam. (*Cf.* pp. 327-33 on Things in Nature.)

Any content in the stream of experience which can be distinguished and noticed becomes an "object" standing out against its background of vague feeling. But some of such "objects," common to me and others, are regarded with special interest as the revelation of a larger world-stream in which I am a mere eddy.

Subjectivism. A label for attitudes which over-emphasise the "subjective factor" in their accounts of how reality enters into our knowledge. Kant's view, which shut off knowledge from Things-in-themselves, was "subjectivist."

Substance. (1) That which "stands under" or supports sensible

attributes without showing in them (2) that which both supports, and shows in, attributes, as the often discussed "Substance of Mind" might be said to do. Spinoza's God is the all-supporting Substance the modes of which, Extension and Thought, reveal it in part. The term lends itself to vague thinking and ought to be used with caution. Substance is further used frequently, (3) as equivalent to Matter, *e.g.* "the substances of the chemist," etc. etc.

Sufficient Reason, Principle of. *Cf.* pp. 343-4.

Syncretism. *Cf.* **Eclecticism.**

System. An ordered whole; a whole articulated so as to embody a plan, *e.g.* "the World-System." A Germinal System is a whole the contents of which and the plan embodied in which are plastic and leave full scope for a rich creative evolution.

Teleological. A "teleological" explanation regards a result as realising an end or purpose. A "teleological" unity is such in virtue of the purpose expressed in it. The "teleological" argument for scholastic Theism infers God from the marks of design in the world. Hence it is also called the Design Argument. *Cf.* pp. 56-9.

Theism. The belief in God either as the World-Ground, or as an exalted finite agent therein.

Theodicy. The justification of God as revealed in the facts of Nature and History. *Cf.* p. 566.

Thing-in-itself. *Cf.* **Noumenon.**

Transcendent. That which lies beyond our experience, as Kant's God and his Thing-in-itself are supposed to lie.

Transcendental (in a Kantian regard) refers to the *conditions* of actual experience. *E.g.* the "transcendental judgment" is a condition of there being experience for us at all.

Transeunt causality. A causal relation in which changes in one term produce changes in another. The riddle is—How does this come about? Have we solved it? See **Penetration,** and the discussion of **Causation.**

Truth. Truth is, or agrees with, reality. It is a grasp, direct or indirect, of reality. I have a genuine direct grasp when I aware a patch of red "in" reality as present to perception; an indirect when I invent, *e.g.* a concept "*about*" reality at large, that of the Cosmic Imagination. Hypotheses, those great instruments of truth-discovery, are products of imagining. They are true if they agree with those modes of *imagining* in other reality to which they refer.

Uniformity of Nature, Postulate of the. If causal conditions A, B, C, concurring issue in D, they will always do so. But they may not concur twice. The judgment is, at best, hypothetical.

Universals. Very important. *Cf.* pp. 392-8. *See also* **Imaginals.** Any reality shared by particular instances is a Universal.

Unknowable, the. Spencer's Absolute. *Cf.* pp. 63-6.
Will. An ideal field realising itself (*cf.* pp. 200-1).
World-Ground. *See* **Ground.**
World-System, the Germinal. A name for the single total thought or World-Idea as it existed in the C.I. before the Metaphysical Fall. *See* **System.**

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