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PAPERS READ BEFORE THE SOCIETY.

1944-45.

Joint Meeting of the Aristotelian Society and the Birkbeck Philosophical Society, on Sunday, November 26th, 1944, at 5.15 p.m., at Birkbeck College.

KANT'S IDEA OF THE GOOD

THE PRESIDENTIAL ADDRESS

By H. J. PATON

I.

IN the *Critique of Practical Reason** Kant makes the following statement. "The only objects of a practical reason are the good and the bad. For by the first, one understands a necessary object of the power of appetite (*Begehrungsvermoegen*), and by the second, a necessary object of the power of aversion (*Verabscheuungsvermoegen*), both, however, in accordance with a principle of reason."

In this definition we need not take seriously the apparent suggestion that appetite and aversion belong to two distinct powers. There is only one power of appetite and aversion; and what Kant calls "the power of appetite" is commonly used to cover the power of aversion as well. The power in question, as is indeed implied in the first sentence quoted, is simply the rational will or practical reason. No doubt the power of appetite may be used in a wider sense to cover desires and wishes, and it may be present in animals which lack reason. But when it works in accordance with a principle of reason, it must be identified with a rational will. As Kant himself says in the *Critique of Judgement*,†

* K.p.V., 101. The references to the *Critique of Pure Reason* (K.r.V.), the *Critique of Practical Reason* (K.p.V.), the *Critique of Judgement* (K.U.), and *Religion within the Bounds of mere Reason* (*Religion*) are to the pages of the original edition. The references to the *Groundwork of the Metaphysic of Morals* (Gr.), the *Metaphysic of Morals* (M.d.S.), and the *Anthropology* (*Anthr.*) are to the pages of the Academy edition. These page numbers are given at the side of the page in the recent volumes of the *Philosophische Bibliothek* edited by Karl Vorlaender.

† K.U. §4, 13-14. Even in a more general sense (which would cover animals) the power of appetite is described as a power to be through ideas the cause of the reality of the objects of these ideas; K.p.V., 16n. For the puzzles about wishes see K.U., XXIII n.

“The good is the object of the will (that is, of a power of appetite determined through reason).”

The good is therefore, according to Kant, a necessary object of a rational will in accordance with a principle of reason.* As the definition is purely general, we must take him to hold that to be good is to be the object of a rational will in accordance with a principle of reason ; and that, *vice versa*, to be the object of a rational will in accordance with a principle of reason is to be good. That is to say, we have here a definition of *goodness*, a definition of the quality—if it be a quality—in virtue of which good things are good. It may, however, remain an open question whether he is professing to state an identity, or merely a necessary and reciprocal connexion, between being good and being the necessary object of a rational will in accordance with a principle of reason. In the first case he would be offering a definition on Professor Moore’s theory of definition ; in the second case he would be offering a definition in a looser sense. As he did not have the advantage of studying the doctrines of modern realism, it may be surmised that he did not put this distinction clearly to himself nor decide explicitly for one alternative rather than the other.

As we shall see, Kant’s definition is intended to cover several different senses in which the word “good” is used, and thereby to show that there is a systematic ambiguity in our ordinary usage. We must judge his success or failure by its results ; but there is perhaps an initial presumption that “good” is not a mere homonym—as the word “punch” is, when it is used both for a blow and for a drink. There would be a systematic ambiguity in our use of the word “punch,” if the drink were so called because it is calculated to administer a knock-out ; but apparently it has received the name on quite other grounds.

* Compare also *Grundlegung*, 412, where Kant speaks of “what reason independently of inclination recognises as practically necessary, that is, as good” ; and also 413, where he says that “what determines the will by ideas (*Vorstellungen*) of reason, therefore not from subjective causes, but objectively, that is, on grounds which are valid for every rational being as such, is *practically good*.” From the context this seems, in spite of ambiguities, to cover the good in general, not merely the unconditioned good, although he may have the latter principally in mind.

It should be noted that in the definition the word "object" is ambiguous. Kant commonly regards the object of a rational will as the state of affairs which an action is intended to produce.* In this sense the object is opposed to the action: it is the intended result of the action. Nevertheless in the above definition we must take the word "object" to cover actions as well as their intended results. Indeed his primary concern is with the goodness of actions: he devotes too little attention to the goodness of their results.

At the risk of distracting attention for a moment from our main argument I must just mention another definition or description of goodness made from a slightly different point of view. In the *Critique of Judgement* Kant says that "what pleases (*gefällt*) by means of reason through the mere concept is good." Here we need note only two points. In the first place, our apprehension of goodness is accompanied by an emotional satisfaction (*Wohlgefallen*), but our satisfaction is the result of the apprehension and not *vice versa*.† This topic lies outside the scope of the present paper. In the second place, if we are to judge anything to be good, and to feel the appropriate satisfaction, we must have a concept of the thing in question. This differentiates goodness alike from the pleasant and from the beautiful, which must be judged on the basis of immediate feeling in each individual case.

To return, however, to our main definition. In what sense can we speak of anything as a *necessary* object of a rational will? And what is the alleged principle, or principles, of reason in accordance with which something can be such a necessary object? As a fairly simple answer can be given to the second question, perhaps we had better deal with it first.

* He does so even in the present passage; see K.p.V., 100.

† The satisfaction in question is esteem or approval (K.U., §5, 15), which in the case of the morally good becomes, for human beings, reverence or respect (*Achtung*).

II.

Everything in nature, on Kant's view, works in accordance with laws—primarily the laws of cause and effect. "Only a rational being has the power to act in accordance with its idea (*Vorstellung*) of laws, that is, according to principles."* It has, in short, a will. But many of these principles are *subjective principles*, valid only for the agent himself: the technical term for them is "maxims." The principles relevant to the good are principles of reason and so *objective principles*; that is, they are principles valid for every rational agent as such. To imperfectly rational beings like ourselves these objective principles appear as commands or imperatives. Hence the objective principles in accordance with which something may be a necessary object of a rational will are, for us, imperatives—imperatives which may be either hypothetical or categorical.

It may be objected that while imperatives may tell us what we ought to do, they cannot tell us what it is good to do. This, whether true or false, is certainly not Kant's view. He says expressly† that *all* imperatives tell us that something would be good to do or to leave undone. Only because they say this to a will which does not always do what it knows to be good, do objective principles have to be expressed by the word "ought." This doctrine is central to Kant's moral philosophy. A holy will, for example, would necessarily act in accordance with the moral law. This law appears to us as a categorical imperative only because it is opposed to the irrational desires of our nature.

In the light of this it is easier to see what Kant means by a "necessary" object of our rational will. He means an object which we should necessarily will *if* we acted according to an objective principle, a principle valid for all rational beings. More simply, a good action is one which would necessarily be done by a rational agent if he were not

* Gr., 412.

† Gr., 413. Compare also Gr., 414, where he speaks of "every practical law."

hampered or obstructed by irrational desires.* The action is objectively necessary in this sense ; but for us it is also subjectively contingent : that is, because we are only in part rational, we may do it or we may not.†

It may be thought that however much this account may fit categorical imperatives, it does not fit hypothetical ones, and perhaps even that Kant did not intend it to do so. Kant's position on this point is, however, perfectly clear,‡ and he is surely right. Every rational agent, if he willed to become a scholar, would necessarily work hard, provided he was not hampered by irrational desires. Hard work is objectively necessary for any who will to become scholars, and this principle is valid for all rational agents as such independently of inclination. Hard work is, in these conditions, a necessary object of a rational will in accordance with a principle of reason. Most of us know too well that it may nevertheless be subjectively contingent, and that what to a purely rational will would appear in some sense good can take on the unpleasing form of obligation. The fact that the principle holds only subject to a hypothesis, viz., the hypothesis that we will to become scholars, does not make it less valid for every rational being.

Since Kant recognises three kinds of imperative, we should expect him to recognise three different kinds—or, more accurately perhaps, three different senses—of “good” ; § and this, though not too clearly or consistently, he in fact does. Hypothetical imperatives concerned with the means to any arbitrary possible end tell us what is good

* Compare Professor Moore in *The Philosophy of G. E. Moore*, p. 616. “For to say that X *ought* to do so and so is equivalent to saying that *if* X had a rational will, he *would* do the thing in question—in at least one sense of the expression ‘rational will’.” His whole discussion here and on pages 608–10 shows interesting resemblances to Kant's view.

† Gr., 412–13. What a purely rational agent would *necessarily* do, a partly rational agent will feel as an obligation or *necessitation* (Noetigung). This difference between necessity and necessitation is sometimes overlooked.

‡ See especially Gr., 414.

§ When we speak of three different kinds of good, we speak of three different classes of things to which the word “good” is applied, although in different senses. So long as we remember that we are not describing three species of one genus, there is no harm in using this expression for the sake of brevity.

in the sense of "useful" or "good for something." Hypothetical imperatives concerned with the means to happiness, an end which all men necessarily seek, tell us what is good in the sense of being "my good" or "good for me." Categorical imperatives tell us what is good without qualification, the intrinsic or absolute or unconditioned good, the good in itself, or simply the good in the strict and proper sense of the term. "Good" in the last sense is what the realists assert to be a simple, unanalysable, intrinsic, objective quality, although they may find it present in things which Kant would hold to be good in some other sense.

There is a real danger of falling into error through a careless use of "good" in different senses. This is especially true if we confuse "my good" with "the good." It might be better if we spoke, as Kant does, not of my "good," but of my "weal" and "woe" (*Wohl* and *Weh*).^{*} Then we could keep "good" and "bad" as unambiguous terms for what is good and bad in itself.

In what follows we must remember that, as I have already said, Kant is concerned primarily with the goodness of actions—in every sense of the word "good"; but it requires little ingenuity to apply his theory to things.[†] We must also remember that the same action may be good in more than one sense. The same action, for example, may be both skilful and prudential and moral. Furthermore Kant considers a will which acts in accordance with any of his three imperatives or principles to be a will *in some sense* good.[‡] This is a not unnatural extension, but his definition ought to be modified so as to cover the will which wills good actions as well as the actions themselves. I should add also that Kant underrates the difficulty of discovering what actions accord with his principles, and that he ignores the

^{*} K.p.V., 104.

[†] The different senses of "good" set forth by Ross in "*The Right and The Good*," pp. 65ff., can, I think, be explained systematically on Kant's principles, either directly or by analogy.

[‡] Gr., 414. The action enjoined by any kind of imperative is, he says, always necessary in accordance with the principle "*eines in irgend einer Art guten Willens*." A good will in the strict sense of "good" is the only absolute good.

problems arising from the failure of a volition to issue in successful action.*

III.

We need say little of "good" in the sense of "useful." This is perhaps the commonest usage, the easiest to understand, and for our purposes the least important. Since our primary concern is with actions, it is worth observing that actions good as means to an end are more naturally described as "skilful" than as "useful"—although perseverance is a factor here as well as skill. Kant describes the imperatives in question as "technical" and as concerned with art (*Kunst*) or skill (*Geschicklichkeit*).†

It is obvious that a man whose actions are skilful, either generally or in a particular field, may himself be properly described as skilful. In this sense one may be a good doctor or a good poisoner.‡

Even at this level it may be doubted whether the concept of means and end is really adequate to describe actions. Some actions seem to be pursued for their own sake rather than as a means to any end: they are not the making of something, but rather the doing of something, as for example when a game is played for its own sake and not merely in order to win. The nature of action requires far more analysis than is given to it by Kant and indeed by philosophers generally. His account of action on the level of technique is only a beginning; but so far as it goes it is not a bad beginning.

I would add that even where the end is definite, the means may be many and various. "There are nine and sixty ways of constructing tribal lays, and every single one of them is right." There is an element of arbitrariness—or,

* In Gr., 394 he mentions this possibility in a special connexion, but he seems to have in mind the kind of special case where a good man in the act of volition is stricken by a sudden paralysis, not the much commoner kind of case where, for example, we fail to hit a golf ball properly.

† Gr., 416.

‡ Gr., 415. Even the poisoner's will may be said to "follow the principle of a will in some sense good"; see Gr., 414.

as I prefer to call it, of creativeness—in action, and without this action would indeed be a dull affair. This element is not altogether ignored by Kant, but it is not adequately examined.

In all this, however, the really important question raised is the question of ends. In what sense, if any, are they to be called “good”? It might be said that they also are good in some sense as meeting a need or satisfying a desire or as a source of pleasure.* Such a reply would be unsatisfactory. We are now considering as means what we formerly considered as ends, and we have to ask in turn whether and in what sense pleasure† or the satisfaction of desire is a good.‡ To answer this we must first ask what is a good for me.

IV.

Kant takes what I have called the good for me or my good to be my weal, my well-being (*Wohlsein*),§ my welfare (*Wohlfahrt*),|| or—most commonly—my happiness. Happiness is a necessary object of a rational will. Since man, as belonging to the sensible world, is a being with needs, reason so far has an office which it cannot refuse, the office of serving the interests of sensibility and of seeking happiness in this world and where possible in the next.¶ In this respect reason in man takes the place of instinct in animals.** Things, and above all actions, are good for me so far as they contribute to my happiness.

* Gr., 428 ; compare Gr., 400.

† We may regard the pleasant as *also* good, but in order to call it good, as an object of the will, we must first of all bring it under principles of reason through the concept of an end ; K.U., §3, 11.

‡ According to Kant inclinations (*Neigungen*), that is, habitual desires, are so far from having an absolute worth that every rational being would wish, though he cannot will, to be rid of them—apparently because they are insatiable, Gr., 428 ; K.p.V., 212. In *Religion*, 69–70, however, he asserts that natural inclinations, considered in themselves, are good, that is, unobjectionable, and it would be not only useless, but harmful and blameworthy, to will their eradication.

§ Gr., 416.

|| M.d.S., 393.

¶ K.p.V., 108.

** K.p.V., 108 ; Gr., 395.

Unfortunately there is considerable obscurity, and perhaps confusion, in Kant's account of happiness. Too often—perhaps in order to contrast happiness as sharply as possible with morality—he appears to regard it as little more than the greatest possible amount of continuous or uninterrupted pleasure throughout the whole of life.* This is taken to be the final end which all men in fact seek.† Actions are then good—that is, good for me—as means to this end. Here the principle of reason in accordance with which action is good as the necessary object of a rational will is merely the principle that since we will this end, we ought to will the means. This principle of prudence or self-love differs from principles of skill merely by the fact that happiness is an end which all men seek. We can say that actions are good as a means to happiness, but we cannot, on this view, say that happiness is a good. All we can say of happiness is that it is, not a good, but a well or weal (*Wohl*), and this appears to mean, on this view, merely that it is a continuously pleasant state.

In all this Kant, like so many Eighteenth Century thinkers, can be regarded as a psychological hedonist, but this must be subject to two not unimportant provisos: (1) that men are so irrational as to perform actions which are not means to happiness; and (2) that men are so rational that they are free to reject happiness where it collides with duty.

This whole attitude serves to show how inadequate is the concept of means and end for the understanding of action. Kant combines it inconsistently with another view, according to which we have no determinate and sure concept of happiness as an end which we seek.‡ Here happiness is the total satisfaction (*Befriedigung*) of our needs and inclinations, §

* E.g. K.p.V., 40. Reason, however, demands that we judge happiness not by the passing sensation but by the influence of the contingent sensation on our whole existence and our contentment therewith; K.p.V., 107.

† In *Religion*, Xln., it is their final but subjective end (*der subjektive Endweck*). For a final end to be *objective* it must be one which we *ought* to seek. Though all men may be said to seek this end of happiness, they do not will the search coherently, but are diverted from it by momentary pleasures and pain.

‡ Gr., 399.

§ Gr., 405.

and what was formerly regarded as a means to happiness is now regarded as an element in happiness.* The task of reason seems therefore not to be merely the recommendation of means to a known end, namely happiness or continuous pleasure. Reason must above all consider what constitutes the end : it must aim at satisfying as many as possible of our needs in an organised life, or (as Kant puts it) at bringing our natural inclinations into harmony with one another in a whole called happiness.† Prudence or rational self-love is concerned with determining the constituents of happiness as well as with prescribing means to these constituents‡ : it is shown in a choice of ends§ as well as of means.

This second view, though far from clearly stated and by no means free from difficulty, is much truer than the first. Our wills are influenced, but they are not determined, as is the *arbitrium brutum* of animals,|| by pleasure or pain or animal inclination ; and our needs and inclinations are not merely for pleasure. Even our most arbitrary choice of ends requires practical reason : no mere animal can set an end before itself. And there seems to me no reasonable doubt that, so far as we are rational, we necessarily seek to realise as many of our ends as possible within an organised and systematic life. This comprehensive rational end is perhaps unfortunately called "happiness," but I know no other word for it. Pleasure and pain are some sort of test of our success or failure, as they are to a lesser extent even in matters of mere skill. But pleasure and the avoidance of pain are very far from being our only end even as imperfect and self-centred beings. Happiness, in the wide sense of the word, is my good. Actions are prudentially good as contributing to my happiness, whether as elements or as means.¶ Similarly things, and particularly states of mind,

* In Gr. 418 there appear to be reckoned among these elements such things as riches, knowledge and insight, long life, and health.

† *Religion*, 70.

‡ *Religion*, 50n.

§ M.d.S., 385. Kant seems to be clearer about this in his later works.

|| M.d.S., 213.

¶ Should we distinguish those which are good as elements, *e.g.*, playing golf, and those which are good as means, *e.g.* ; waiting for a bus to the golf course ? The same question arises about things or states of mind.

are good for me, as contributing to my happiness, whether as elements or as means.

On any view what is good for me is relative to me as an individual, but this does not mean that it is determined by mere arbitrary choice. We can to a considerable extent discover what is good for us as individuals by studying our own desires and circumstances and by the method of trial and error. Our conclusions can within limits be checked, and perhaps—though this is dangerous—corrected, by other people. In this as in other matters what is relative may nevertheless be objective. Our judgements of prudential and skilful actions are quite obviously neither mere assertions about, nor expressions of, our own emotions. To assert that intelligence or reason is not manifested in these judgements is wrong-headed. Nevertheless it is well to recognise that our knowledge in these matters is very imperfect, and much of it comes too late in life to be of much use. It is also well to recognise that in prudential action there may be, within limits, a still greater element of arbitrariness, or creativeness, than in merely skilful action. We cannot taste all the pleasures, nor can we realise all the ends, that might, considered separately, be possible for us.

On the level of the good for me there are presumably degrees of goodness ; some things must be better for me than others. These degrees of goodness must, I take it, be determined largely by a process of trial and error. My decision will depend partly on my individual needs and inclinations, and partly on arbitrary choices which may in time alter my needs and inclinations—as, for example, Darwin's devotion to science is said to have diminished his interest in poetry—though even here we must remember that what appears to be an arbitrary choice may be the outcome of some deep need or unconscious desire in the soul. We must also take into account the actual circumstances in which we are and the possibilities open to us in these circumstances. To a certain extent we can get some guidance from the accumulated experiences of others. We have a rough test in the extent, and above all in the quality, of our pleasure ; but we must judge also by considering how far each particular activity

harmonises with other activities, and how far the realisation of each particular end is compatible with the systematic realisation of other ends which we also seek.

The problem of the good for me is thus not the problem of finding means to a known end which is the only object of desire, namely, continuous pleasure. It is rather the problem of determining a comprehensive end in which particular ends will find their place. But if we say this, we must not think of ends as merely the results of our actions. Even at this level the task of practical reason is to organise our activities in a harmonious whole and so to meet our divers needs and satisfy our divers inclinations, including our inclination for pleasure, if this can be regarded as a separate inclination. To use a catchword of the moment—the problem is one of integration, not of means to an end.* The good for me is the necessary object of a rational will in accordance with a principle of integration.†

This, if we take Kant at his best, seems to be all the good he offers us below the level of the moral good. Is it enough? Surely the good for each individual may also be described simply as a good. Indeed are we not entitled to say that certain activities or states of mind such as happiness, knowledge, artistic enjoyment, and personal affection, are good in themselves; and that this would remain true even if few, perhaps even if no, rational beings either needed or desired them? And must we not assume this before we even begin to speak of moral good at all?

I am not quite sure what Kant's answer is to these questions—except to the last, where he undoubtedly gives a negative answer. He certainly regards happiness as a natural good‡ in the sense in which it is something which a rational agent, so far as he is also sentient and subject to needs and inclinations, will necessarily seek (except in so far as reason is thwarted by passion). This natural good is a

* This may, I think, be said also of the problem even of skill.

† This does not mean that we must plan our whole life in advance—any more than we should plan in advance every move in a game of skill. But in every particular decision we must be guided by the concept of a wider whole, and ultimately—though this may become explicit only in crucial decisions—by the concept of our happiness as a whole.

‡ *Anthr.*, §88, 277.

good in itself provided it is not incompatible with virtue. But in his actual discussions of duty he appears to assume that, besides this end which all men naturally seek, there is another end, namely, natural and moral perfection, which they are meant to seek and which they ought to seek. Moral perfection we shall come to later : it is the highest and the only unconditioned good. The pursuit of natural perfection is the cultivation of our natural powers. Under this Kant includes the cultivation of bodily powers, because man is partly an animal ; but his main concern is with the cultivation of mental or spiritual powers which mark men off from animals, notably reason, understanding, and imagination.* The exercise of these powers he seems to regard as a higher good than anything connected primarily with happiness. But it must be remembered that he discusses this only from the moral point of view.

If Kant's answer on these points is obscure, there are two points at least on which he is perfectly clear. In the first place, every good that we have hitherto mentioned is a conditioned good ; that is to say not merely that it is good only in relation to the desires and needs and potentialities of the agent, but also that it is good only in so far as it is compatible with a moral will, which alone is an absolute and unconditioned good, a good in itself independently alike of circumstance and of desires. And in the second place, no will is morally good merely on the ground that it is a will for any conditioned good. The second contention follows from the first, since unconditioned goodness cannot be derived from conditioned goodness.

V.

We now come to the good proper, the unconditioned good, which, like all other goods, should be the object of a rational will according to a principle. The principle here cannot be one which holds on the condition that a certain

* M.d.S., 391ff. and 444ff. All this is reminiscent of the teleological ethics of Aristotle.

end is sought ; but if we exclude reference to particular ends, all we are left with is the form of a principle or the form of a law, that is, law as such or universality as such. This means that an action—for we are concerned primarily with action—is good in so far as it is willed by a rational will for the sake of law as such. Law as such appears to us as a categorical imperative because of our imperfectly rational nature ; and what it enjoins appears to us as what we ought to do, as a duty and not merely as a good. Nevertheless we must not forget that an absolutely good or holy will would necessarily act in accordance with the moral law : its maxims would necessarily agree with the laws of autonomy.*

In a sense this definition of the good tells us very little : it says that what is good must be good in the judgement of all rational beings—so far as they are rational—independently of their contingent desires. But this judgement is not merely an intellectual judgement, still less one based on feelings of pleasure or pain. It is a judgement that the good is a necessary object of all rational wills,† so far as they are rational ; and this judgement could not be made unless we were conscious of a rational will in ourselves.

Strictly speaking, Kant's definition does not cover everything which he considers good ; for he holds that while individual actions are properly called "good" and even "immediately good" or "good in themselves," that which is absolutely good, good in every respect and without further condition, is the maxim of the will and therefore the acting person himself as a good man.‡ An absolutely good or holy will is one whose maxims are necessarily always good, always in accordance with the laws of autonomy.§ Although Kant speaks of willing our maxims, and of willing that they should be universal laws|| or willing their universality as laws,¶ we do not will our maxims as we will our actions, nor are our maxims naturally regarded as objects of our will.

* Gr., 439 ; see also 414.

† Compare K.p.V., 106.

‡ K.p.V., 106-7.

§ Gr., 439 ; K.p.V., 109.

|| Gr., 421.

¶ Gr., 437.

Still less is it natural to regard the good will itself as an object of our will.

These and other puzzles I must pass over. It is, however, not paradoxical to say that a will is good which always issues in good actions, even if this means that we ought in some way to modify our definition. Nor is it paradoxical to say that our maxim is good, if it is the maxim of a good action and indeed the maxim in virtue of which the action is good. The maxim Kant has in mind here is the maxim of willing only what accords with the moral law.

According to Kant an action is good in virtue of the principle in accordance with which it is willed—a principle of universality and so of impartiality between myself and others. However empty this principle may seem, it is surely sound so far as it goes. An action is not good in virtue of its matter, in virtue of what is willed. Two actions may have the same matter, and yet one may be good and one bad ; and again two actions may have different and even opposing matter and yet both be good. If we seek to find a common matter in all good actions, are we not doomed to disappointment ? What is common to good actions is, at least primarily, their principle or form. It is important to recognise that this principle is an unconditioned principle—not one subject to the condition that we are seeking a particular end such as our own happiness. Certainly there is a revolution in the soul when we pass from seeking the satisfaction of our own desires to the attempt to follow an objective and impartial standard.

All this assumes that we can will our actions for the sake of law as such, for the sake of law-abidingness as such, or—in the case of imperfect human beings—for the sake of duty as such. Kant believes—no doubt with too little reflexion—that when this motive is present, it will issue in actions which accord with law as such or with duty as such. He also holds that only actions done with this motive are good in the strict sense. Actions done merely from a desire, however praiseworthy, for such objects as the happiness of others are not good in this sense, and such motives do not necessarily issue in actions which accord with law as such. On the

latter point he seems to me obviously right ; and this at least tends to indicate that even desires for the happiness of others are not the same as a desire for goodness, which, whether or not it takes the form of reverence for duty, is the only basis for distinctively moral action.

It may be objected that on Kant's view actions are not really good in themselves : they are good only as a means to the realisation of the law as such. Such an objection illustrates once more the inadequacy of the concept of means and ends for the understanding of action. Actions are good as themselves realisations of the law and not as a means to such realisation. Kant himself does not hesitate to say that all moral interest is only reverence for the law,* and also to say that practical (or moral) interest is in the action itself and its rational principle (namely the law).† To say that an action is good in virtue of the principle which it embodies is not to say that it is good merely as a means.

Kant's doctrine assumes further that where, because of our imperfections, the law appears to us under the guise of a categorical imperative, the ultimate duty enjoined on us is the duty of acting morally.‡ The arguments brought against this seem to me unconvincing, and I think that any such arguments are opposed to a fundamental moral intuition and are therefore to be distrusted ; but this question I do not propose to discuss here.

VI.

So far we have considered only the form of good actions. How is this form to receive a varying matter in the different circumstances in which we have to act ? How are we to know what a good man would necessarily do in any given circumstances ? Granted that we have adopted the principle

* Gr., 401n.

† Gr., 413n. According to 460n. our interest in the action is an *immediate* interest, not a *mediate* interest because of our desire for the object it produces.

‡ Gr., 400 : Duty is the necessity of acting out of reverence for the law. Compare Gr., 439 and M.d.S., *Tugendlehre, Einl.* VII, 391, where Kant says that the universal ethical command is "Act in accordance with duty for the sake of duty."

of acting for the sake of law as such, or for the sake of duty as such—and unless we have adopted it, however imperfectly, the question does not even arise—how can we determine in each case what we ought to do? Is not the question unanswerable unless we make many further assumptions than those already established, whether satisfactorily or not, about the good in the sense of the useful and the good for me? Kant's reply to this can be expounded only after a detailed examination of his method in the *Metaphysik der Sitten* such as I have never seen made by any one. All we can do here is to attempt to feel our way along some of the main lines of his doctrine.

Kant says in the *Grundlegung* that we must start with the maxims of our proposed actions, that is, with the subjective principles on which we propose to act. These maxims are concerned generally with the good for me, and we must suppose them already to take into account the integration both of our ends and of the means to these ends. On Kant's view we ought to adopt or reject these maxims according as they qualify, or fail to qualify, as universal laws. In our maxims we have the generalised matter which is to be brought under the form of universality. Can I will these maxims *as at the same time* universal laws? Or, as I should prefer to say, can I will the proposed action, not only as falling under a subjective principle valid merely for myself,* but also as falling under a law valid for everyone in a similar situation?

In practice we can very often give a negative answer to this question straight away, and its practical utility seems to me to be commonly underestimated. Nevertheless such answers are made in the light of unexamined assumptions which it is the business of moral philosophers to examine; and it is surprising that Kant in the *Grundlegung* should apparently imagine it possible to decide without further ado on the qualification of an isolated maxim to be a universal law. Kant's principle is sound, but its application is not so easy. Nor is the position made really better by supposing

* This subjective principle may also be objective in the sense that it is valid for every rational being *if* he seeks these particular ends.

the maxim to be a universal law *of nature*,* that is, of supposing it to be universally followed. This may be a help to our limited imagination ; but the view that in some cases we can at once find it self-contradictory as a law of nature, as also the view that if we did, we could thereby show it to be morally wrong, seems to me indefensible.

We must not, however, forget that the categorical imperative takes other forms, derived from the first in the light of the fact that action must have ends as well as principles. These give us three further principles : (1) the principle of using rational agents, never as mere means, but also as ends in themselves (the word " end " here receiving a remarkable extension of meaning)† ; (2) the principle of autonomy, or of making, by means of our maxims, the universal laws which we obey‡ ; and (3) the principle of acting as a law-making member of a realm of ends.§

The first principle means, among other things, that, as far as possible, I should make the permissible, and not merely the obligatory, ends of others my own.|| The third principle means that I should seek, as far as I may, the realisation of a realm of ends, that is, a whole of all ends in themselves *and also of the special ends which each may set before himself*¶ (so far as these are compatible with universal law). All this goes with the view that while a good will is the highest good in the sense of not being subordinated to any other, it is not the complete good. To have the complete good, the ends of all good wills must be realised, and the complete good in the world would be a world, not only of perfect virtue, but of a corresponding happiness.** The complete original good is, on Kant's view, the existence or

* Gr., 421.

† Gr., 429.

‡ Gr., 432.

§ Gr., 436.

|| M.d.S., *Tugendlehre Einl.* V B, 388 ; §25, 450.

¶ Gr., 433. The immediately preceding statement that we must abstract from personal differences and from the content of private ends must mean, I take it, that the realm of ends is constituted by the universal law, and that private ends are admitted into it only so far as they are compatible with the law.

** K.p.V., 199.

the will of God, apart from which the complete good in the world cannot be realised.*

In one aspect of this doctrine the end of good action is the satisfaction of the maximum possible amount of human needs or desires. Morality aims at the integration of the ends of all mankind, as prudence aims at the integration of the ends of the individual. In the *Grundlegung*† we are told that the Idea of the pure moral will stands to the sensuously affected will in somewhat the same relation as the categories stand to our intuitions of the sensible world. In the *Critique of Practical Reason*‡ there appears to be a parallel between (1) the way in which theoretical understanding brings the manifold of sensuous *intuition a priori* under one consciousness and (2) the way in which practical reason subjects the manifold of *desires a priori* to the unity of the consciousness of a practical reason or a pure will which issues commands in the moral law.

On this view the happiness of mankind—if we take “happiness” in its widest sense—would seem to be the object or end of moral action. Happiness does play a much greater part in Kant’s moral philosophy than is commonly recognised, but to state the matter thus baldly is an exaggeration. In the topic of pure practical judgement, § where Kant explains how the goodness of a maxim must be tested by its suitability to be a universal law *of nature*, he asserts that although happiness can indeed serve as a wholly adequate “type”—and so presumably criterion—for the morally good, it is nevertheless not identical with it. The good man would be happy in a good world or a fully realised realm of ends, but would not be good in virtue of his happiness. Nor would he be good merely because he sought the happiness of others, but because he sought it for the sake of

* K.p.V., 226 and 236.

† Gr., 454.

‡ K.p.V., 115.

§ K.p.V., 125. “Happiness and the endless useful consequences of a will determined by self-love, if this will at the same time were made a universal law of nature, may certainly serve as a completely adequate type for the morally good, but it is not identical with it.” Kant may have in mind here the happiness of the individual agent if all men acted morally, but the same principle would apply to every individual agent.

law or for the sake of duty.* Furthermore although Kant generally says we ought to further what others consider to be their happiness so long as their view is not contrary to morality or in our judgement manifestly foolish,† at other times he speaks as if our ideal should be to make happiness proportionate to virtue.‡ In any case happiness is a conditioned good to be sought only in so far as it is compatible with virtue ; and although the happiness of each agent is included in the happiness of all mankind,§ nevertheless in using himself as an end in himself and not merely as a means, the agent has a duty to seek, not his own happiness (unless indirectly), but his own perfection, spiritual and moral.

In this second aspect of Kant's doctrine the good man is concerned, not with the satisfaction of needs and so with happiness, but with the realisation of potentialities, and especially of those potentialities which distinguish him from the brute ; and this concern with perfection seems to presuppose, as I have already pointed out, that man has an end other than the happiness which he naturally seeks, and indeed which he rightly seeks so long as it is not incompatible with virtue.|| It may be thought that Kant makes too sharp a distinction here, since to some extent there is a correspondence between needs and potentialities, and even between happiness and the realisation of potentialities. Can it be our duty to seek always the perfection of self and the happiness of others, but never the happiness of self and the perfection of others ?

Whether Kant exaggerates this difference or not, he is at least trying to deal with a real difference between the attitude of a good man to himself and his attitude to others. A good man will seek his own happiness (so far as this is compatible with morality), and indeed he has an indefeasible right to do so ; but he will not regard this as a duty, because

* K.p.V., 196-7. It is not the object but the law which determines the will, unless we include the law in the object.

† M.d.S., *Tugendlehre*, Einl. V B, 338 ; §25, 450.

‡ K.p.V., 107 ; 199.

§ K.p.V., 234 ; M.d.S., *Tugendlehre*, §27, 451.

|| M.d.S., *Rechtslehre*, Einl. II, 216 ; *Tugendlehre*, §27, 451 ; Einl. VIII 2, 393 ; Einl. V B, 388 ; K.p.V., 234 ; 108 ; 166.

his nature as a whole presents no obstacle to this search ; it can be a duty only indirectly, if unregulated passion or even an unregulated zeal for righteousness threatens to produce an unhappiness which may make him an easy victim to moral temptations.* As to his attitude to others, it is refreshing to find a moralist who holds it our duty, not to improve others, but to further what they believe to be their happiness. Our only duty in regard to their *moral* well-being is a negative one, and even this is really concerned directly with their happiness : we should do nothing which might tempt others to a course of conduct about which they might afterwards suffer the pangs of remorse.†

This extreme view seems to be connected with Kant's insistence on autonomy or freedom as the basis of morality. He is so jealous of human freedom that even the grace of God seems to be directed, not to making men better, but to rewarding virtue with happiness. This is at least a not ignoble error.

Kant speaks at times as if what he calls the duties or offices of virtue (*Tugendpflichten*) were concerned only with the agent's perfection and the happiness of others.‡ There seems, however, to be intertwined with this another strain concerned with reverence for personality in ourselves and others, and with the recognition of a worth or dignity in humanity as such. Here the principles at work appear to be (1) the principle that rational agents are ends in themselves and (2) the principle that they need obey only laws which they themselves have made. What arouses Kant's reverence is the worth or dignity of man as a free and autonomous agent in a vast mechanical universe : the two things which fill him with ever new and ever increasing wonder and awe are the starry heavens above him and the moral law within.§ Hence the good man will have a reverence for others which is more than concern for their happiness.|| And he will also have a reverence for humanity in himself, a reverence

* M.d.S., *Tugendlehre*, Einl. VI B, 388 ; Gr., 399.

† M.d.S., *Tugendlehre*, Einl. IX, 394.

‡ M.d.S., *Tugendlehre*, Einl. IV, 385.

§ K.p.V., 288.

|| M.d.S., *Tugendlehre*, §37, 462.

which seems more than a concern for his own perfection. Kant's condemnation of many vices, for example, his almost exaggerated horror of lying,* seems to rest on a direct intuition that such a vice is incompatible with the worth or dignity of a free man.

The essential point to grasp about Kant's ethics is that in the main it is worked out in relation to ends which are also duties.† Even when he finds contradictions, perhaps too easily, in the maxims of vice, the alleged contradictions are not discovered merely by universalising the maxim or treating it as a law of nature : for example, the maxims are said to be incompatible with inner freedom and with the innate worth of man.‡ Indeed the method of taking a maxim and asking whether it can qualify as a universal law is expressly restricted to jurisprudence or political philosophy ; and even here the question asked is whether the freedom of the agent can be compatible with the freedom of every other agent in accordance with a universal law.§ Hence even Kant's jurisprudence is concerned with the laws necessary to secure the external liberty of rational agents in a system of society.

Here we are concerned only with the general method whereby Kant finds a matter for his ultimate principles of goodness and obligation ; and we must note also that the good man, besides reverencing humanity in himself and others and seeking his own perfection and the happiness of others, will also seek to establish a system of positive laws which must ultimately cover all mankind, and will obey these laws, not merely because of their sanctions, but for the sake of duty.

There is one further point of great importance. Kant supposes, quite mistakenly, that we can determine legal obligations and the punishment for their transgression with

* M.d.S., *Tugendlehre*, §9, 429.

† M.d.S., *Tugendlehre*, *Einl.* I, 380-1 ; "since sensuous inclinations mislead us to ends which can be opposed to duty, law-making reason can defend us against their influence only through an approved moral end, which therefore must be given *a priori* independently of inclination."

‡ M.d.S., *Tugendlehre*, §9, 429.

§ M.d.S., *Tugendlehre*, *Einl.* II, 382.

something like mathematical precision.* In Ethics, however, he recognises that our duties always admit of latitude or *Spielraum* for free choice.† It is our ethical duty, not to perform certain precise acts, like the legal obligation to repay precisely what we have borrowed, but rather to act on certain maxims, such as maxims of benevolence. Exactly what we shall do in accordance with these maxims is left to our choice, and we are free to determine this by rules of prudence and not by moral laws.‡ One of the defects of the “fantastically virtuous” is to ignore these limitations.§ It is our duty to strive after the ideal of moral perfection or holiness, but it cannot be our duty to attain this ideal in our present life.|| In this Kant shows his usual good sense, and leaves a place for the arbitrariness or creativeness of all action (including moral action) which is too commonly ignored.

VII.

I will end with a brief assertion of some personal views.

It seems to me that Kant's principles are sound : the difficulties arise mostly in regard to their application. Even as regards their application Kant's method is far more successful and far more sensible than is commonly recognised. If we can develop along Kantian lines the three concepts of the good for something, the good for the individual, and the absolute or moral good, it seems not impossible to construct a satisfactory moral philosophy. It is, in my opinion, a real advantage that these concepts should be brought into systematic relations with one another and that we should not have to suppose the word “good” to be used in three completely unrelated senses. Along these lines it seems possible to combine the absoluteness of moral

* M.d.S., *Rechtslehre*, *Einl.* IV F, 232-3 ; *Tugendlehre*, *Einl.* VIII, 411 ; *Rechtslehre* 332 ff ; 362-3

† M.d.S., *Tugendlehre*, *Einl.* VII, 390 ; XVIII, 411.

‡ M.d.S., *Tugendlehre*, §10, 433n.

§ M.d.S., *Tugendlehre*, *Einl.* XVII, 409 ; §10, 433n.

|| M.d.S., *Tugendlehre*, §22, 446.

principles with relativity in their application, and to avoid—as Kant himself did not wholly avoid—a mechanical system of ethics which supposes the rules suited to a particular society to be valid for all societies whatever. In this way it may be possible to combine such truth as is contained in the relativism of empirical theories with the truth contained in the absolutism of the deontologists and agathistic utilitarians. It is worth while trying to see whether we can diminish the large number of unrelated absolute goods, which to the modern generation appear to be so-called mainly because of the personal preferences of individual phillosophers. It is still more worth while to establish, if we can, some absolute principles without which morality ceases to be morality and society is left to the mercy of caprice.

On the other hand Kant makes assumptions which are not, I think, clearly stated nor systematised in relation to his fundamental principles. In particular the part played in his system by teleology and by some sort of direct ethical intuition is by no means adequately discussed. Indeed his whole doctrine has to meet the searching criticisms of modern realists, criticisms which cannot be examined in the present paper.

One last point. Kant is offering us a definition of good, and indeed, I think, a real definition, that is, one which not only enables us to distinguish the object defined from other objects, but also enables us to show the possibility of the existence of the object defined.* This will seem unsatisfactory to those who hold good to be an indefinable and unanalysable quality which we grasp by some sort of intellectual intuition. Yet even they should consider the possibility that the good is *also* the necessary object of a rational will in accordance with a principle, and that the necessary object of a rational will in accordance with a principle is *also* good. I need not labour this point, since Professor Moore, who is the author of this doctrine, has expressed his complete agreement with the view, not merely that there might be, but that there is, some such reciprocal and

* *Logik* 106 ; K.r.V., A241 n. ; M.d.S., *Rechtslehre*, 248-9 ; 260-1 ; 286-7.

necessary connexion between "good" in his sense and will.* But I must confess for myself that I doubt whether "good" is such an indefinable quality. I can understand how a quality like "yellow" which is given to sense, may be unanalysable and indefinable. I can even understand how the relation between objects given to sense, like the relation "above" or "below," may be unanalysable and indefinable. I think I can understand how a quality like "beauty," which appears to be given in or through our own mental or imaginative activity, may be simple and indefinable. But I find it hard to understand how we can assert, on this supposition, that there is, as we are told, a necessary connexion between the concept of things of a certain kind, such as aesthetic enjoyments, and such a simple and unanalysable quality. We certainly cannot assert such a necessary connexion between the other simple indefinable qualities I have mentioned and the concept of any class of things. We cannot say, for example, that a poem must be beautiful if it is concerned with love; and although we may make empirical generalisations about the colour and even about the pleasantness of strawberries, the individual strawberry is known to be red, or known to be pleasant, only in actual sensation. Yet according to Professor Moore, we can say of an action or an object that so far as it belongs to a certain kind, it must be good. This must be a synthetic *a priori* proposition, since the concept of good is supposed to be unanalysable and the concept of a class of objects or actions does not contain within itself the concept of good. I fail at present to see how such a synthetic *a priori* proposition can be justified, if good is a simple and indefinable quality; and, if I may borrow a phrase from Mr. Falk, *indefinibilia non sunt multiplicanda praeter necessitatem*.

* *The Philosophy of G. E. Moore*, p. 615. The qualifications added on p. 617 do not, I think, affect this central point.

I—COMMON-SENSE PROPOSITIONS AND PHILOSOPHICAL PARADOXES.

By C. A. CAMPBELL.

I.

LIKE many, perhaps most, students of philosophy in this country, I have long been troubled by a number of points in Moore's famous paper, "A Defence of Common Sense," in the Second Series of *Contemporary British Philosophy*. Just why is Moore so certain that he "knows" the common-sense propositions listed? Just what is it he thinks he is knowing when he knows them? Just how does he conceive the bearing of what is thus known upon the solution of philosophical problems? These are some of the questions to which it has seemed to me hard to find satisfactory answers in the paper. Nor did much real help appear to be forthcoming from the commentators. These philosophers, despite the close acquaintance which most of them enjoyed with the technique of Moore's philosophical thinking, were hardly less ready than one's self to confess perplexity. Moreover, these philosophers, however puzzled they might declare themselves to be about Moore's meaning, almost all seemed to feel in their bones that he was saying something of extraordinary importance—a circumstance which made one's failure to understand the more disquieting.

From the state of intellectual frustration thus induced, the recent volume on Moore¹ by nineteen eminent students of his philosophy naturally held out good promise of relief. Somewhere in this massive work one might surely hope to

¹ *The Philosophy of G. E. Moore*. Except where otherwise stated, all page references in my paper will be to this work.

discover at least some of the missing clues. And, certainly, I do not think that anyone can read this stimulating set of essays with attention and not gain a much clearer insight into many aspects of Moore's thought. I am bound to confess, however, that on the particular points upon which I especially desired enlightenment, such enlightenment as had ensued has in the main been evoked indirectly, through the medium of rather violent disagreement with contentions of the essayists. And as this has been most conspicuously the case with regard to the very contribution which Dr. Nagel, in his review in *Mind*,² judges to be "the best and most rewarding in the final group of papers, if not in the whole volume" exhibiting "a penetrating grasp of Moore's method of philosophizing" and giving "a most persuasive and illuminating account of the rationale behind his defence of 'common sense'"—the essay by Mr. Norman Malcolm entitled "Moore and Ordinary Language"—I think it may be of some interest to others besides myself to attempt a rather detailed study of this ingenious but, as I think, misguided composition. I shall hope to show that, although Malcolm may conceivably be giving a valid *account* of Moore's thought,³ he is certainly not, as he and apparently Dr. Nagel believe, giving a valid *justification* of that thought. The criticisms I have to offer will pave the way for some final reflections of a rather more positive character upon the relationship between common-sense propositions, language, and analysis.

II.

In this Section I propose to describe the way in which Malcolm envisages the problem of his paper and the general line of argument which he adopts for its solution. Criticism will be deferred to the two following Sections.

² *Mind*, Jan., 1944. Quotations are from p. 70.

³ The fact that, in his "Reply to my Critics" at the end of the volume, Moore does not expressly dissent from Malcolm's suggested "rationale," cannot be taken as conclusive evidence of acceptance: but it does suggest that Moore has not felt that Malcolm misinterprets his mind very seriously.

Malcolm begins with a series of twelve philosophical statements, whose common character is that they are all paradoxical to common-sense. They are such propositions as "There are no material things" (1); "Time is unreal" (4); "There are no other minds—my sensations are the only sensations that exist" (7); "We do not know for *certain* the truth of any statement about material things." (10)⁴

To each of these propositions in turn Malcolm then opposes a very short common-sense argument which in his opinion is the sort of argument *Moore* would give, "or at least which he would approve."⁵ Thus (to take the two propositions about which there will be most to say in the sequel) the reply to Prop 1 is "You are certainly wrong, for here's one hand and here's another; and so there are at least two material things."⁶ The reply to Prop. 4 is "Both of us know for *certain* that there are several chairs in this room, and how absurd it would be to suggest that we do not know it, but only believe it, and that perhaps it isn't the case."⁷

Malcolm's problem is, are these common-sense arguments valid refutations of the philosophical paradoxes they attack, and if so, why? Malcolm believes that they are, and that he can show why.

"I hold that what Moore says in reply to the philosophical statements in our list is in each case perfectly true; and furthermore, I wish to maintain that what he says is in each case a good *refutation*, a refutation that shows the falsity of the statement in question. To explain this is the main purpose of my paper."⁸

⁴ pp. 435–6.

⁵ p. 346.

⁶ p. 346.

⁷ p. 347. It may be mentioned that Malcolm's opinion that his common-sense arguments would be approved by Moore is substantially borne out by Moore himself. In his "Reply to my Critics," p. 669, he accepts all twelve arguments as *good* arguments; qualifying his approval only by the remark that in one case (Prop. 8) he would hesitate to say that the argument, though good, *proves* the falsity of the proposition against which it is directed.

⁸ p. 349.

The next paragraph indicates what is to be the cardinal principle in Malcolm's explanation, and the two stages which will be involved in the full development of the argument.

"The essence of Moore's technique of refuting philosophical statements consists in pointing out that these statements *go against ordinary language*. We need to consider, first, in what way these statements do go against ordinary language ; and, secondly, how does it refute a philosophical statement to show that it goes against ordinary language." ⁹

At this point we may be said to have reached the beginning of the argument proper. Malcolm is undertaking to show us that the philosopher in uttering his paradoxes is using words and phrases in a way which conflicts with ordinary usage, and that in denying certain common-sense propositions what he is really doing is "asserting the impropriety of an ordinary form of speech." If this can be shown, the second stage of the argument will give little difficulty. It is an easy matter to show that *ordinary language* is *correct language*. It will then follow that the paradoxes of the philosopher are without justification.

In what way, then, do these philosophical statements "go against ordinary language" ? Malcolm develops his argument in greatest detail in connection with Prop. 10—"We do not know for *certain* the truth of any statement about material things." In giving this argument, I shall quote Malcolm's own words as fully as regard to limitations of space will permit.

This paradox, Malcolm notes, has been a particularly popular one among philosophers. He chooses to concentrate, however, upon the version of it given by Mr. Ayer in his *Foundations of Empirical Knowledge* ; presumably because "Mr. Ayer is one who realises that when he makes this statement he is not making an empirical judgment, but is condemning a certain form of expression as improper." ¹⁰

⁹ p. 349.

¹⁰ p. 353.

In that work, from which Malcolm quotes at length, Ayer gives as the ground of the paradox the fact that material-thing statements can never be fully verified, "since the series of relevant tests, being infinite, can never be exhausted."¹¹ Ayer goes on to contend that since the state of "being sure" about a material-thing statement is one the attainment of which would require us to have completed an infinite series of verifications, and since the conception of such a state is self-contradictory, to say that "we can never be sure"—a statement which suggests that the state of "being sure" is in this context conceivable—may be objected to on the ground that it is misleading. "What we should say," Ayer decides, "if we wish to avoid misunderstanding, is not that we can never be certain that any of the propositions in which we express our perceptual judgments are true, but rather that the notion of certainty does not apply to propositions of this kind."¹²

At this point Malcolm steps in. What Ayer has said, he thinks, is tantamount to an admission that the disagreement between the philosopher and the plain man is only about the use of language.

"He [Mr. Ayer] thinks that the phrase 'known for certain' is properly applied only to *a priori* statements, and not to empirical statements. The philosophical statement 'We do not know for certain the truth of any material-thing statement' is a misleading way of expressing the proposition 'The phrase "known for certain" is not properly applied to material-thing statements.' Now Moore's reply 'Both of us know for certain that there are several chairs in this room, and how absurd it would be to suggest that we do not know it, but only believe it, or that it is highly probable but not really certain!' is a misleading way of saying 'It is a proper way of speaking to say that we know for certain that there are several chairs in this room, and it would be an improper way of speaking to say that we only believe it, or that it is highly probable.'

¹¹ Quoted by Malcolm, p. 454.

¹² Quoted by Malcolm, p. 353. Italics Malcolm's.

Both the philosophical statement and Moore's reply to it are disguised linguistic statements."¹³

And it is Moore, Malcolm argues, who is right "in this as in all the other cases."¹⁴

"By reminding us of how we ordinarily use the expressions 'know for certain,' and 'highly probable,' Moore's reply constitutes a refutation of the philosophical statement that we can never have certain knowledge of material-thing statements. It reminds us that there *is* an ordinary use of the phrase 'know for certain' in which it is applied to empirical statements; and so shows us that Ayer is wrong when he says that, 'the notion of certainty does not apply to propositions of this kind.'"¹⁵

In this last paragraph Malcolm is anticipating the second stage of his argument—that *ordinary* language is *correct* language—and as the second stage will be irrelevant if the first stage breaks down, we had better pause here to examine the first stage—that philosophical paradoxes "go against ordinary language."

III.

No one can look after Mr. Ayer's interests one half so well as Mr. Ayer, and I do not propose to try to anticipate what his reply might be to Malcolm's criticism. Ayer's argument (which I accept) can quite well be treated in detachment from his general philosophical position—as indeed Malcolm has treated it. When so regarded, it seems to me not at all difficult to show that it is merely perverse to suggest that the implication of this argument is that the dispute between the philosopher and the plain man, between paradox and common-sense statement, is a matter of "linguistics."

For, consider. Certainly it follows from Ayer's argument that "the phrase 'known for certain' is properly applied

¹³ p. 354.

¹⁴ p. 354.

¹⁵ p. 355.

only to *a priori* statements, and not to empirical statements." So too we could say, if we liked, that from some argument designed, let us say, to demonstrate the internal activity of physical bodies, it follows that "the phrase 'internal immobility' does not apply to physical bodies." But surely this would be an altogether inept and unnatural way to express the consequence of the argument in the one case as in the other? For it seems perfectly clear that what each argument is concerned with is the proper understanding of the *facts* of the situation, and not with any problem of linguistics: and that there is a "disagreement about language" with the plain man *only because* there is a disagreement about the correct reading of the facts. The plain man thinks that in certain situations there is no possible room for doubting the truth of such and such a material thing-statement: he therefore, very properly, applies the phrase "known for certain" to that statement. The philosopher thinks that when we bear in mind certain considerations which the plain man has not taken into account, more particularly the never wholly eradicable possibility of hallucinations and dreams, we can see that there *must* always be room—however slight—for doubt: and he therefore, equally properly, says that we can *not* apply the phrase "known for certain" to material-thing statements. In short, the "disagreement about language" is wholly consequential upon a "disagreement about the facts." So that instead of it being the case, as Malcolm contends, that the philosophical statement, "We do not know for certain the truth of any material-thing statement" is a misleading way of expressing the proposition. "The phrase 'known for certain' is not properly applied to material-thing statements," precisely the *reverse* is true. The latter proposition is a misleading, a *highly* misleading, way of expressing the former proposition.

Let us get quite clear about this business of "disagreement about the use of language."

A small child, just learning the use of simple words, points to a cow close by, clearly outlined in the sunlight, and says, "Look at the horse!" We say to him "That's

not a horse, it's a cow." Here it is natural and proper to say that the disagreement is "linguistic." There is no difference, or none of substance, in the facts apprehended. The child sees much the same features as the adult, the features characteristic of the cow. He simply "applies the wrong label," having mistakenly assigned to the name "horse" characteristics which he should have assigned to the name "cow."

Suppose, on the other hand, two adults walking in the fields by night, and confronted by a dark shape, dimly silhouetted against the grass. One says "There's a horse!" The other replies "No, it's a cow," and he may add "I can see its horns." Here we would regard it as quite ridiculous to speak of the disagreement as "linguistic." The two men attach precisely the same meaning to the terms "cow" and "horse." Their disagreement is about the facts: and naturally a different form of words is required to express differently apprehended facts.

The principle seems perfectly plain. A difference between statements is properly attributable to a disagreement about the use of language only in so far as that difference is *not* determined by a different reading of the facts of the situation and *is* determined by the assignment of different meanings to constituent words or phrases.

Let us apply this principle to the difference between the philosopher's paradox and the common-sense proposition. Is there, in the first place, no difference in the "reading of the facts"? Of course there is. I have already indicated what it is. The philosopher's reading of the facts includes the apprehension of what he regards as a legitimate ground for doubt ignored by the plain man. So far as I can see, there is only one expedient by which it could be maintained, as Malcolm wants to maintain, that there is no disagreement about the facts. That is, by confining "the facts" to the sensory presentations which occasion the statements. But Malcolm does not explicitly resort to that expedient, and it is not difficult to understand his reluctance. For if *that* is what we are going to mean by "the facts," then "the facts" are

properly expressed *neither* by the statement "We know for certain that . . ." *nor* by the statement "We cannot know for certain that . . ." but only by some quite different statement such as "We have a sensory presentation of . . ."

In the second place, *is* there a difference between the philosopher and the plain man about the meaning assigned to constituent words and phrases? It seems to me equally clear that there is *not*. The plain man understands just as well as the philosopher that knowing for *certain* means knowing in a way that excludes the possibility of doubt. It is only because on his reading of the facts there is no possibility of doubt—or else for another reason, to be discussed in a moment, equally consistent with acceptance of the philosopher's meaning of "knowing for certain"—that he is content to use the phrase he uses.

If anyone should feel the need of a proof that the plain man really understands that "knowing for certain" means "knowing in a way that excludes the possibility of doubt," I don't think he will need to search far to obtain it. Let him show the plain man hitherto unsuspected grounds for doubt in the case of any proposition at all which the plain man has been in the habit of thinking, and saying, he "knew for certain." If the plain man appreciates these grounds, he will at once confess that he does not, after all, know for *certain*; though he may very well add, should the ground suggested be ground for only a very faint degree of doubt, that he is still "*practically* certain." Indeed, there must surely be very few, if any, teachers of philosophy who have not performed this kind of "experiment" upon beginners in the subject; and performed it, moreover, in relation to precisely the kind of common-sense propositions here in dispute. I should be profoundly surprised to learn that the results of their "experiments" differ significantly from mine. Almost universally, in my experience, the student recognises that he is mistaken in saying that he "knows for *certain*;" though he may, as I have said, go on to insist that the ground for doubt is so clearly negligible that he remains "*practically*" certain. But "*practically*

certain" is *not* "certain:" and nothing but confusion can result in philosophy from their identification.

This notion of "practical certainty," however, calls for a closer consideration. Examination of it will point to the need of a qualification to the general statement that the plain man always means by "knowing for certain," "knowing in a way that excludes all possibility of doubt."

I think it would probably be agreed that what we normally mean by a proposition being "practically certain"—at least where we use the phrase with any degree of care—is that the proposition is one about which the ground for doubt is so slight that it may safely be ignored in our actual behaviour, *i.e.* in "practice." Now, if a proposition is such that any doubt about its truth may be legitimately ignored "for all practical purposes," then, *should we be speaking in a context in which it is clear that the sole interest of the proposition to us is its practical interest*, it would be by no means unnatural to *drop* the word "practically"—since it would be taken as understood—and to speak simply of the proposition as "certain." The ellipse seems a perfectly justifiable one, and the practice of it is exceedingly common. Thus the philosopher himself is quite ready to say, in the ordinary traffic of life, "I am certain there are several chairs in this room." He *is* certain—for all practical purposes. And since it is quite evidently in the context of practical purposes that the proposition is uttered, he does not deem it necessary to make explicit this qualification to his certainty.

Malcolm's treatment of our problem seems to me to suffer rather seriously from his omission to take any account of this notion of "practical" certainty. Had he done so, and had he observed how natural it is in certain circumstances to elide the word "practical," it would, I think, have made a difference to some of the inferences he thinks it legitimate to draw from common speech. Thus he tells us that "Moore's reply [to Prop. 10] reminds us of the fact that if a child who was learning the language were to say, in a situation where we were sitting in a room with chairs about, that it was 'highly probable' that there were

chairs there, we should smile, and *correct his language*.”¹⁶ So we should. We should no doubt say to him that it was “certain.” Not, however, because we believe it to be *absolutely* certain, but because we believe it to be *practically* certain, and because we consider that practical certainty is all that matters to the child—or indeed to the adult—in that practical context.

It follows from this discussion that a trifling modification must be admitted to the principle that the phrase “knowing for certain” has the same meaning in common-sense propositions as in philosophical paradoxes. In the former case we *may* be meaning by “certainty” only “practical certainty.” But it must be insisted that the modification is only a trifling one, which in no way prejudices our criticism of Malcolm’s argument. For in the common-sense propositions which Moore and Malcolm are interested to defend, “certainty” is taken in the sense of “absolute,” not “practical,” certainty. Were it otherwise, indeed, *cadit quaestio*. For no philosopher that I know of has ever seriously disputed that these common-sense propositions have “practical certainty.” The propounders of the “paradox” that we do not know for certain the truth of any statements about material things assuredly have no thought of denying that in numberless cases the ground for doubt may safely be ignored “for all practical purposes.”

IV.

We have, I hope, seen adequate reasons for rejecting, at least in the case of the example to which Malcolm has chosen to give most attention, the view that philosophical paradoxes “go against ordinary language.” If that stage of his argument fails, it becomes, strictly speaking, a work of supererogation to consider the second stage—the demonstration of how a philosophical statement is refuted by showing that it goes against ordinary language.

Nevertheless, I think it will be profitable to give a

¹⁶ pp. 354–6.

good deal of attention to this stage of Malcolm's argument also. And this for two reasons. First, because it may with some justice be felt that we have so far concentrated too much upon a single example ; and we shall have an opportunity in "stage two" of widening the field. And secondly, because in formulating the key proposition of "stage two," the proposition that "ordinary language is correct language," Malcolm seems to me to slip into the acceptance of a criterion of "ordinary language" which makes that proposition not true but false. And I rather fancy that it is largely *because* he is thinking in terms of this criterion of ordinary language that he finds it so easy to persuade himself that philosophical paradoxes go against ordinary language.

This suspect criterion first makes its appearance in a passage designed to show how absurd it is for a man knowingly to use language in a way contrary to established custom. Malcolm supposes the case of two men (we shall call them A and B) looking at an animal. A says it is a fox : B says it is a wolf. Yet B, according to the hypothesis, agrees with A not only "as to what the characteristics of the animal are, but furthermore *agrees that that sort of animal is ordinarily called a fox.*"¹⁷ If B were to continue to insist that it is a wolf, Malcolm goes on, "we can see how absurd would be his position. He would be saying that, although the other man was using an expression to describe a certain situation which was the expression ordinarily used to describe that sort of situation, nevertheless the other man was using incorrect language. What makes his statement absurd is that ordinary language *is* correct language."¹⁸

I agree about the absurdity of B's statement. But I am not at all happy about the criterion of "ordinary language" which seems to be implied in Malcolm's formulation of this absurdity. It looks as though Malcolm is saying that in any given situation the mark of "ordinary

¹⁷ p. 357.

¹⁸ p. 357.

language" is that the expression used to describe it should be "the expression ordinarily used to describe that sort of situation." Now, if this implies that language is being used in a sense *out of* the ordinary wherever a *different* expression is used from that ordinarily used to describe the situation, it seems to be plainly false. Suppose a situation X, ordinarily believed to have the characteristics *abcd*, and therefore ordinarily described by the expression which symbolises the characteristics *abcd*. Does it follow that anyone who describes X by the expression which symbolises the characteristics *abfg* is using language out of its ordinary sense? Not at all. For it may well be that this person disagrees with ordinary opinion in his analysis of X, and is convinced that it has the characteristics *abfg*. If so, his use of the expression symbolising *abfg* is the ordinary and correct use of language.

B's position, of course, remains absurd. For B, *ex hypothesi*, agrees with A that the situation is characterised by *abcd*, and yet rejects as incorrect the ordinary expression, symbolising *abcd*, used to describe that sort of situation. What I am anxious to make clear, in view of what immediately follows in Malcolm's paper, is that the use of language may be ordinary and correct even if it describes by an expression symbolising *abfg* a situation *ordinarily* described by an expression symbolising *abcd*.

What "immediately follows" in Malcolm's paper is an attempt to show that the philosopher who says that we can never really perceive material things is committing the very same absurdity as B, "though in a subtle and disguised way." It will be best to give the crucial passage in full —

"But the philosopher who says that the ordinary person is mistaken when he says that he sees the cat in the tree, does not mean that he sees a squirrel rather than a cat; does not mean that it is a mirage; does not mean that it is an hallucination. He will agree that the facts of the situation are what we should ordinarily describe as 'seeing a cat in a tree.' Nevertheless, he says that the man does not *really* see

a cat ; he sees only some sense-data of a cat. Now, if it gives the philosopher pleasure always to substitute the expression 'I see some sense-data of my wife,' for the expression 'I see my wife,' etc., then he is at liberty thus to express himself, *providing* he warns people beforehand so that they will understand him. But when he says that the man does not *really* see a cat, he commits a great absurdity ; for he implies that a person can use an expression to describe a certain state of affairs, which is the expression ordinarily used to describe just such a state of affairs, and yet be using incorrect language."¹⁹

Is our sceptical philosopher really as foolish as all that ? I am quite sure he is not.

Does the philosopher agree "that the facts of the situation are what we should ordinarily describe as 'seeing a cat in a tree' "? In a sense, yes. He agrees that here is a situation X ordinarily described by the expression symbolising *abcd* ('I see a cat in the tree'). But this does not in the very least imply, as it would have to imply for Malcolm's argument to be effective, that he agrees that X has in fact the characteristics *abcd*. On the contrary, the sceptical philosopher's analysis of the situation leads him to believe that X is characterised by *abfg*, not *abcd*. He therefore, very rightly, uses the expression symbolising *abfg* to describe it. And of course he does *not* go on to say, or to imply, that the ordinary man is using incorrect language. For he knows that the disagreement is not about language at all, but about the facts. The philosopher would agree that the plain man is using perfectly correct language to describe the facts as he apprehends them.

It is worth while pointing out also that the philosopher would not demur in the indiscriminate and unqualified way that the passage quoted suggests to the statement of the plain man who says "I see a cat." On ordinary occasions the philosopher will freely make such statements

¹⁹ pp. 357-8.

himself. He objects to them only *in the context of philosophical discourse*, where it is vital that our words should *accurately* describe the facts. If our sceptical philosopher chose to make a detailed reply to Malcolm's criticism, incorporating this point, I think it might run somewhat as follows :—

“No doubt we do ordinarily describe this situation by saying ‘I see a cat.’ In ordinary life no harm is done thereby. For practical purposes this expression serves very well to secure the desired behaviour-adjustments—much better, indeed, than the technical statement of the philosopher, which would certainly be cumbersome and probably be unintelligible.²⁰ So I take no objection to the ordinary statement in the context of ordinary discourse. But if we are talking *philosophy*, if our interest is in the accurate and precise description of the real facts, and not in mere practical effectiveness, then I must demur. For I cannot agree that the statement ‘I see a cat’ does accurately and precisely describe the facts as these appear on an analysis of them more thorough than is appropriate to everyday life. The ordinary statement suggests, *e.g.*, that through visual sensing alone we cognise the cat. And this seems not to be the case. There are good grounds for holding that several factors besides visual sensing (though precisely what they are is admittedly controversial) enter essentially into cognition of the cat. There are good grounds for holding that visual sensing gives us at most certain ‘sense-data’ of colour, shape, and size, and that the sense-data seen at any one time are not only not identical with the cat (since there is much in what we mean by a ‘cat’ which these sense-data do not cover), but may not even be identical with the surface of the cat. In short, the real ‘facts of the situation’ are very different

²⁰ Berkeley has said about all that needs to be said on this matter. “In the ordinary affairs of life, any phrases may be retained, so long as they excite in us proper sentiments, or dispositions to act in such a manner as is necessary for our well-being, how false soever they may be, if taken in a strict and speculative sense.” (*Principles of Human Knowledge*, 1st Ed., Para. 52.)

from anything that can be said to be accurately described by the statement 'I see a cat': and we must not therefore allow the practical convenience of this kind of statement to beguile us into supposing that it is other than inept in philosophy."

Is there any valid reply to this defence of his "paradox" by the philosopher? I can only say that I cannot find one in Malcolm's pages.

V.

In the light of what has been urged in the last two Sections, I venture to conclude that Malcolm has failed in the main purpose of his paper. If Moore's defence of common-sense propositions against the paradoxes of philosophy is to be justified at all, it cannot be done on the ground that philosophical paradoxes "go against ordinary language." The division is far deeper than one of "linguistics."

In this final section I want to pass from Malcolm's paper in order to give attention to a very important type of common-sense proposition which plays a prominent part in Moore's writings. The statement "I see a cat" may be said, in virtue of its form, positively to clamour for philosophical correction if it is made within the context of philosophical discourse. This is not, or not so obviously, the case if the perceptual judgment is formulated in the statement. "This is a cat." Has the philosopher anything to condemn here? I gather that a good many persons think that the sceptical (which we may here take as including the immaterialist) philosopher *has* something to condemn; and that this proposition contradicts, by implication if not directly, such propositions as "There are no material things," and "It is doubtful whether there are any material things." I believe this view to be mistaken. In what follows I shall attempt a brief analysis of the proposition in question designed to bring this out, and also to bring out certain other important facts about this type of proposition.

Let me indicate in advance the general ground upon

which I hold that the sceptical philosopher has no reason to quarrel with the proposition "This is a cat." It is that in this (and in any similar) proposition, as asserted in common speech, nothing whatever is asserted or implied as to the being or not-being of material things in any sense of "material things" in which their existence has been a subject of philosophical controversy. Berkeley would not have considered it in the least way inconsistent with his immaterialism to assert "This is a cat:" and he would only have objected to the assertion of the proposition by others if he had some special reason to suspect from the context that the speaker intended his words to imply that the cat was a "material thing" in a sense not resolvable into a cluster of "ideas." In ordinary contexts, it seems to me, there is no such implication. Nor, of course, is there a contrary implication. The specific point of the proposition is, as I see it, quite neutral towards the philosophical issue. I do not doubt, indeed, that if the plain man were asked, after he had uttered his statement, whether he means by the cat a cluster of ideas (in some sort of relationship) or a non-mental entity, he would reply unhesitatingly that he meant the latter. But that does not imply that the "materiality" of the cat was any part of what he asserted in his original proposition. All the plain man would mean, I think, would be, that *had* the question been raised at the time he made his assertion, that is how he would have answered it. But he would agree that neither question nor answer was at that time in his mind at all.

I have said that the specific point of this type of proposition is neutral towards the philosophical issue. This I believe to be true, and to be the real justification of the contention of Moore and his school that propositions of this sort are proof against any of the paradoxes of the philosopher. But to see that, and in what exact sense, it is true, we must now examine more closely what precisely it is that is being asserted, whether by the plain man or by the philosopher in the ordinary context of life, in the proposition "This is a cat."

First, as to the "this." At first glance it might seem as though the "this" were what is presented in sense. But a moment's reflection suffices to show that such is not the case. The sensory presentation contains a certain complex of sensible features, but the speaker assuredly does not believe that the "cat," which he identifies with the "this," is exhaustively characterised by the limited features in this complex. The meaning which the term "cat" has for him includes many more constituents than can be presented in any single sensory apprehension. Evidently, then, the "this," though it "has" these sensibly presented features, is taken to be an entity of wider scope, which "has" also many other features.

The importance for the proposition of the sensibly presented complex is, of course, that the speaker recognises therein certain features which are characteristic, in a more or less central way, of what is ordinarily meant by a "cat." He recognises, perhaps, a characteristic shape, size, and mode of movement, and a colour that falls within the rather wide range characteristic of cats. And he apprehends in the complex no features which he recognises as incompatible with the characteristics of cats. Then, having reason to believe, either from experience or from hearsay, or from both, that an entity which sensibly presents this particular group of features is almost, or almost always, an entity which in the appropriate empirical situations exhibits all the other features characteristic of what we mean by a "cat," he proceeds to identify the "this" with the "cat" in the proposition "This is a cat."

If, then, we attempt to articulate the precise meaning which the proposition "This is a cat" has for the speaker who asserts it, we might do so in some such form as this:—"The entity which I sensibly apprehend as having certain of the features characteristic of what is meant by the term 'cat' is an entity so constituted that it will exhibit in the appropriate situations all the other features characteristic of what is meant by the term 'cat.'" This statement, so far as I can see, includes everything that the speaker

intends, and nothing that he does not intend, when he asserts "This is a cat."

Two omissions from the statement call for special notice. Nothing appears there as to *how* the entity is supposed to "have" these features. This is as it should be. The speaker, in asserting the proposition, holds no view as to "how." The entity may "have" these features as real constituents of a "thing," or as members of a "family" of sense-data, or as "representations" of real constituents of a thing—in what way is a matter of complete indifference from the point of view of the proposition being asserted. The proposition's truth or falsity is not affected by the truth or falsity of any view about "sense-data" and "things." The speaker regards his proposition as verified or falsified according as the entity which somehow "has" these sensible features does or does not exhibit in the appropriate empirical situations the other features characteristic of a "cat." Nothing else matters. That is the "point" of the proposition. There is no reference, implied or otherwise, to *how* precisely the entity has the sensibly apprehended features.

Much the same has to be said about the second omission. Nothing appears about the relationship supposed to hold between the "other features" and either the entity judged to have them or the sensibly presented features which the entity also has. Again it seems to me that nothing *should* appear, that the speaker has no views on the matter. That the entity should exhibit these "other features" on the occasion of the appropriate empirical tests—that is all the speaker is concerned to assert. These empirical tests are recognised by the speaker as sufficient to verify or falsify his proposition. But it is clear that they cannot verify or falsify any view as to how these other "features" are related to the "entity" on the one hand or to the sensibly presented features on the other. What the truth may be about these matters is irrelevant to the truth or otherwise of the proposition.

Now, if this analysis be accepted as sound in substance, there are a number of comments which seem worth making

as to its bearing upon contemporary philosophical controversies.

1. We have established our view that the sceptical philosopher has no quarrel with propositions of the type "This is a cat." The proposition "There are, or at least may be, no material things," and the proposition "This is a cat," are not contradictory of one another. It follows that no appeal can be made to propositions of the latter kind (in so far as they are true) in order to disprove propositions of the former kind. Of course, if the plain man were to say not just "This is a cat," but "This is a cat : and a cat is a material thing,"²¹ then his proposition *would* be in contradiction with that of the sceptic. But on this situation two remarks fall to be made.

(a) The contradiction *may* be only verbal. The plain man may very well be meaning, when he calls the cat a material thing, merely that under certain appropriate conditions relating to the entity he and others will have certain definite sensible experiences, primarily of a tactual character : that, in fact, it is a "tangible" as distinct from an "intangible" entity. If that *is* all the plain man means, the sceptic has no reason for dissent. Their respective propositions are only in verbal, not in real, contradiction. And certainly the plain man seems to think, with Dr. Johnson, that a thing's materiality is at least *established* by the possibility of tactual sensations with regard to it.

(b) I agree, however, that the plain man may mean more than this. He may mean that the cat is a material thing in a sense of "material thing" in which its existence *is* in dispute among philosophers. In that case his proposition is in real contradiction with that of the sceptic. But in that case I really fail to see why we should regard his proposition as a *common-sense* proposition, and entitled on that account to claim special authority. For if a common-sense proposition is entitled to special authority at all, it is surely only in virtue of the great mass of past

²¹ Malcolm's "common-sense reply" to his Prop. 1 is of this general character, but it is only given by him by way of illustration, and not developed. Moore appears to approve it.

experience through which it is supposed to have established and sustained itself. But the proposition which the plain man is now asserting is not established or sustained by anything of the sort. There seems no reason to suppose that the "mass of past experience" is either more, or less, consistent with his proposition than with that of the sceptic. If we are going to prefer it to that of the sceptic, it ought therefore to be only because it is more capable of being supported by philosophical argument—not because of some peculiar authority enjoyed by common-sense propositions.

2. I want to say something now about the relationship between the kind of analysis attempted above and the kind of analysis which Moore gives of the same type of proposition in his "Defence of Common Sense."

There is, I think, no great mystery as to how our own kind of analysis is connected with the proposition it analyses. Its aim is, keeping consistently within the mental orbit of the speaker, to unfold, and give detailed expression to, what the speaker himself means when he asserts the proposition. It is of the essence of this kind of analysis that the speaker should be able to recognise that this *is* what he meant by his assertion. There was no reason, of course, why he should himself trouble to say it in this elaborate way. The simple words "This is a cat" are the accepted way of expressing the meaning in question, and give rise to no misunderstanding. But in so far as the analysis is a sound one, it will contain nothing which the speaker cannot recognise, and everything which the speaker can recognise, as relevant constituents of his proposition.

In some respects this is very similar to Moore's kind of analysis. And in point of fact the analysis of "This is a cat" given above seems to fulfil pretty completely the conditions of analysis in his own sense which Moore lays down in his most recent statement on the subject.²²

On the other hand, it does differ in at least one important respect from analysis as Moore actually practises

²² p. 663, and later on p. 666.

it in the context referred to. This becomes manifest when we remind ourselves of the special difficulty in the analysis of common-sense propositions which led Moore to declare that although we know these propositions for certain, "no philosopher, hitherto, has succeeded in suggesting an analysis of them, as regards certain important points, which comes anywhere near to being certainly true."²³ When we try to analyse a proposition such as "This is a hand" Moore finds, we are able to say some things about it with tolerable certainty. But one particularly obstinate problem holds us up. What is it in such propositions that we are knowing with regard to the "sense-datum," and more particularly with regard to its relation to that of which it is a sense-datum? Moore examines what he believes to be the only possible alternative types of solution of this problem: but to each of them he finds objections which seem to him sufficiently grave to warrant him in saying that "no philosopher has hitherto suggested an answer which comes anywhere near to being certainly true."²⁴

But it is clear that this kind of difficulty can arise only for a kind of analysis which refuses to confine itself to what the speaker himself means in his assertion of the proposition. No such difficulty arose for us; because (so it seemed to us) the speaker is not, in asserting the proposition, in the least way concerned with the nature of the relationship between the sense-datum and that of which it is the sense-datum. The speaker is of course aware of presented sensible features and of an entity which somehow "has" them. But as to the special nature of the "how," he has no view. For no view on this subject is relevant to what he is concerned to assert. The truth or falsity of what he is concerned to assert does not depend in the smallest degree upon the truth or falsity of any view about the relationship of the sense-datum to that of which it is the sense-datum.

It seems to me, therefore, that Moore's analysis is not,

²³ *Cont. Brit. Phil.*, p. 216.

²⁴ *ibid.*, p. 219.

in this instance at any rate, an analysis of what the speaker means in asserting the proposition. This conclusion would still hold even if I am mistaken in my view that the speaker is asserting nothing about the relation of the sense-datum to that of which it is a sense-datum. For suppose he is asserting something about this. If he is, then, if he really is a plain man, there is only one kind of relationship he *could* be asserting ; for there is only one kind of relationship the possibility of which has ever entered his head, *viz.*, the inherence of the sense-datum as a real constituent in that of which it is a sense-datum. Hence if Moore's analysis were really analysing common-sense propositions of plain men from the point of view of what plain men assert in them, he would have to rule out *ab initio* all other alternative answers about this relationship. That he in fact is far from doing this confirms our view that he is not, or not consistently, concerned to bring out what the speaker himself means in asserting his propositions.

I must confess that it seems to me difficult to hold that an analysis which makes problems of this sort central can be called, in any intelligible sense, an analysis of "common-sense" propositions. This kind of problem, I should have said, belongs essentially to the metaphysics of perception. The question to which an answer is being sought in the discussion of this problem is, at bottom, "What is the true nature of the sensory presentation which occurs in perception of objects and how is it related to the object that is perceived?" That is a question of first-rate interest and importance : but I cannot think that the answer to it is capable of throwing any light upon the problem of what is being asserted in "common-sense" propositions.

3. I should like, finally, to stress, though it must be briefly, a main element of value in our kind of analysis, which remains consistently at the point of view of the speaker himself.

This kind of analysis, in elucidating for us precisely what we are asserting, and thus what precisely we are claiming to know, seems to me to be an indispensable

condition of our forming a worth-while judgment as to whether we really *do* know what we claim to know. It is a commonplace that people frequently think they know with certainty all sorts of propositions which are in fact false, and which they therefore cannot "know": and that this failing is not confined to the plain man, but extends even to philosophers gifted beyond the ordinary with powers of self-criticism—Descartes, for example—the history of philosophy amply attests. Fairly early in the Modern era, however, philosophers (largely through the influence of Descartes himself, despite the occasional aberrations of that philosopher's practice) learned to view with acute, and wholesome, suspicion propositions backed by nothing more substantial than strong personal conviction. That lesson seems to me to be in danger of being unlearned. Perhaps the pendulum had swung too far in the direction of scepticism. Certainly it is swinging back now with a vengeance.²⁵ I think it is a good deal more than time to call a halt. When, for example, Moore says to us, in answer to his own question whether it isn't possible that he merely *believes* common-sense propositions, or knows them to be *highly probable*, "I think I have nothing better to say than that it seems to me that I *do* know them with certainty,"²⁶ I could wish that philosophers would have the courage to retort, with all respect, "If indeed you have nothing better to say, we are not interested. For this is a matter upon which there obviously *is* something better to say." For surely there is something a *great deal* better to say: first and foremost, what precisely is being asserted in the proposition claimed as known. Once we are clear about *that*, we shall generally (perhaps always) be in a position to see the kind of evidence that is relevant to the verification of the proposition. Then, and only then, we shall be able to form a critical judgment as to whether the evidence in our possession really does entitle us to claim that we

²⁵ Consider, *e.g.*, the favour now so widely accorded to "intuition"—not so long ago, for excellent reasons, the boggy-word of philosophy.

²⁶ *Cont. Brit. Phil.* p. 206.

know the proposition "for certain."²⁷ But to insist that we know for certain the truth of a proposition before we have even tried to make clear to ourselves what is being asserted in the proposition—that is an attitude for which no defence seems to me possible.

Let me illustrate by reverting, in a last word, to our old proposition "This is a cat." Are we entitled to say that we know for certain a proposition of this sort? It is evident that analysis can assist us enormously towards giving the correct answer. It enables us to appreciate that at least some of the objections which philosophers have directed against the possibility of knowing such a proposition are groundless. We can see the irrelevance of objecting that there are, or at least may be, no material things; or again of objecting that nobody yet knows how a sense-datum is related to that of which it is a sense-datum. On the other hand, in revealing to us the kind of evidence that is relevant to the truth or falsity of the proposition, analysis seems to me to make it clear that even under the most favourable conditions absolute certainty is impossible. I at least cannot see any way of evading the force of Ayer's contention that the series of relevant tests is infinite, and can thus never be exhausted. Doubtless we can in certain cases attain to a degree of probability that is quite fantastically high. But the distinction between even fantastically high probability and *certainty* remains. And though such distinctions are of little interest to "common-sense," I do not think they can be slurred over in philosophy without disaster.

²⁷ The view expressed in this paragraph is not meant to imply the view that there is no rational certainty without "proof," or that where we cannot prove a thing acceptance of it becomes a mere matter of faith—a view which Moore justly condemns in the concluding paragraph of his British Academy Lecture. I at least should agree that proof presupposes something known without proof. My point in this paragraph is that we cannot know whether or not the proposition in question is the kind of proposition for which grounds are needed until we analyse it and find out what precisely it is that is being asserted in it.

Joint Meeting of the Aristotelian Society and the Moral Science Club on Thursday February 1st 1945, at 8.30 p.m., at King's College, Cambridge.

II.—ARE MENTAL ATTRIBUTES ATTRIBUTES OF THE BODY?

By A. C. EWING.

MAN has been defined as a spirit dragging about a corpse, and also as a couple of bucketfuls of water mixed with a little carbon, phosphorus and other chemicals. I do not wish to defend either definition, though if forced to choose between them, I should regard the first as less misleading than the second. But they do raise in epigrammatic fashion one of the great issues of philosophy, which may be expressed in more philosophical (though, as we shall see, still not adequate) terms by asking whether mental attributes are or are not just attributes of the body. It is not an issue in discussing which philosophers have usually been at their best. Indeed, I am inclined to agree with a remark of Professor Broad's to the effect that the arguments used in this field have often been so bad that it seems as if the subject exercised some mysterious stupifying influence on those who considered it (other than, the reservation is mine, Professor Broad himself), but the subject is so important that I am prepared to run the risk of being myself stupified by venturing on it.

Now a person who denies that mental attributes are anything more than attributes of the body may be maintaining what is commonly called Behaviourism, but I do not think I need waste much time on this. Behaviourism, if it is put forward as a philosophical account of mental phenomena and not merely as a methodological device for psychology, is generally understood as meaning one of two things. It may mean (*a*) that there are no mental facts, no such facts at all as believing, thinking, feeling,

etc. In that case we need not trouble about refuting the theory, because according to its own account nobody ever believes it, nor could we even think about the theory but only produce noises or marks on paper without thought. This, though true, is not, however, the ultimate reason for rejecting this form of Behaviourism. The ultimate reason is simply that we immediately know by introspection facts incompatible with its truth. Descartes' *cogito, ergo sum* is quite adequate to establish the existence of mental facts, if not of a soul-substance in the sense of Descartes. (b) The behaviourist may mean, however, that there are facts such as believing, thinking, feeling, etc., but that these are to be analysed merely as facts about the movement of my larynx or vibrations in my brain or other facts which could conceivably be observed by a physiologist inspecting my body. This view can be seen to be false as empirically, as clearly, and as certainly as the other form of behaviourism. If we inspect some of what we call mental facts and compare them to physiological facts, we shall see them to belong to a different kind of facts not reducible to the other just as clearly as we see that sights are not reducible to sounds. If anybody doubts this, let me recommend a simple test. Let him first take and keep hold of a piece of red-hot iron and carefully note his experience. Let him then read an account with diagrams of the physiological changes supposed to occur through the impact of red-hot iron on the body, including of course those in the nerves and brain, and he will find that he was immediately aware of when he held the iron is radically different from anything which is described and portrayed in the book on physiology. When we observe contortions of the limbs and face or hear groans we are observing something totally and generically different from what we observe when we observe our own pain. It is equally, though not so painfully, obvious that thinking is not identical with a movement of the larynx. In fact I feel grave doubts as to whether anybody ever has maintained Behaviourism in either of the two senses just defined with a clear consciousness of what he was maintaining, though the term has been commonly

understood in these senses by philosophical critics of the theory. I shall mention shortly certain points of view which are liable to be confused with what I, following the usage of most philosophers, have called Behaviourism.

What I want to emphasise now is that the refutation of both forms of Behaviourism is empirical. That they are false is just as much an empirical matter as that blue is not green or that an elephant is not a horse. They can be refuted by the kind of direct inspection that we call empirical observation and do not need for their refutation either argument or an appeal to *a priori* intuition. This is obscured by the *cogito ergo sum*, which certainly seems to be an argument and one that, like *a priori* arguments in general, discloses a contradiction in the view which it is intended to refute. But it is not the case that the proposition that there is no consciousness is self-contradictory. What would be self-contradictory would be for it to be true both that there is no consciousness and that somebody believed or suspected that there was no consciousness. In the absence of an actual experience of believing, doubting, feeling, etc., there would be no ground for asserting the occurrence of consciousness any more than there would be any ground for asserting the existence of dogs if nobody had seen or in any way empirically encountered a dog. But the proposition that consciousness occurs, though itself empirical, has a peculiarity which it shares with few empirical propositions, namely, the possibility of believing or even entertaining its contradictory as a speculation is logically incompatible with the proposition entertained being true. Consequently the belief that there is no consciousness, though internally not by any means self-contradictory, for it is conceivable that there might have been no consciousness in the world, could not be held by anyone without a kind of self-contradiction, since the very holding it would be a fact that proved it false. And a similar point may be made in regard to anyone who should doubt whether there was any consciousness without believing that there was not.

We must, however, be careful not to fall into the error

of thinking we have established more than we have. It is quite clear that mental facts are different facts from physical facts, but it does not from this follow straightaway that body and mind are different substances. My thinking is very different from the motion of my larynx or the vibration of my brain-cells, but it may still be that the body is the substance (whatever that may turn out to mean), and that my mental activities and experiences are only attributes of my body. What would have to be admitted is that, even if this is so, the same substance has two very different sets of attributes, those we call mental and those we call physical ; but then the same thing may have two very different sets of attributes. We cannot say without further investigation that their difference of itself justifies us in postulating in addition to the body another substance, the soul. And it is likely that what some behaviourists, and certain that what many people who have called themselves "materialists," have really meant when they denied mind was not that there were no mental facts, but that mental attributes were just attributes of the body. To say "the brain secretes thought as the liver secretes bile" is not to deny the existence of thought. And it is compatible with thought being very different from bile.

It is also a commonplace by now that we must distinguish the Behaviourist philosophy from the methodological behaviourism of certain psychologists. Many psychologists who try to pursue a behaviourist method and would probably call themselves behaviourists do not mean to imply that there are no mental facts or that these are reducible to facts observable to the physiologist. What they mean to assert is that, though there are mental facts, it is the best policy for the psychologist not to try to observe them directly, or ask his subjects to do so, and base scientific conclusions on that, but to study their physiological manifestations. Behaviourism in this sense is a statement of policy and not a denial of empirical facts. Whether it should be accepted or not seems to be a question of scientific method within psychology, though if it is not supplemented at least by

interpretation in terms of knowledge derived from introspection, it may be pointed out that the so-called psychologist is not really studying psychological states but something quite different. No doubt there is a sense in which all research into the psychology of people other than oneself must be behaviouristic, for even their reports on their own introspections are a form of physical behaviour, but if by the behaviourist method is meant a method which tries to proceed without the help of any reports based on introspection by anybody, it is far too narrow to serve as the sole method of psychology. Nor could such a method give any information about psychological states at all if its results were not at least interpreted in terms of elementary concepts, *e.g.* desire, pain, etc., derived from our own introspections. Whatever may be said about the difficulties of making a science of introspective psychology, it cannot possibly be denied that some propositions about mental states are as certain as anything could be. If the behaviourist will try the simple experiment with the red-hot iron which I suggested earlier, he will soon be as certain as he could be of anything that he is feeling pain, yet he can only know this by introspection. There are mental facts then, and some of them at least can be discovered by introspection. What is their relation to the bodily facts which we must also admit?

There has been a great deal of insistence in recent times that any discussion of "the mind-body problem" must recognise the very close relation between the two factors concerned, but the only close relation we can establish is a causal one (or if parallelism is held) a quasi-causal one. Mental and bodily events are not in fact, at least, empirically given, at all like each other. Descartes has been very sharply criticized for his "dualism", but he was perfectly right in denying any similarity between them, at least as they appear to us, though he may have been too dogmatic in the conclusions he drew from this. Wounds and diseased organs are not like throbs of pain, brain-cells united by vibrating nerve tissue are not like thoughts, muscular innervation is not like volition. This point is

not weakened if the James-Lange theory is adopted and emotions identified with organic sensations, for this does not make emotions like the organs or physical organic disturbances which produce the sensations. We can indeed, if we prefer it, maintain that body and mind are really much more like each other than they appear to be, but this is going very far beyond the empirical evidence ; and if we wish to take such a line we can only do so by maintaining that matter is really mental and not that mind is really material. For we cannot deny that introspection, at least in favourable cases and according to most philosophers always, reveals mental processes as they really are, so that if we are going to maintain that the mental and bodily sides of our nature are more like each other than they appear to be, we must find the discrepancy between appearance and reality, not in the former, but in the latter. It is a fact agreed even by most "realists" that we do not know the inner nature of matter but only its appearances and external relations ; and if we do not empirically know what it really is, this inner nature may well be mental. I cannot say that I am much impressed by the positive arguments for this view of matter, but it is difficult to show it false. But the only discoverable elements in mental process which are at all like matter are those we call images (including sense-data, if a representative theory of perception is adopted). Images definitely resemble the surfaces of physical objects as they are conceived by common-sense (not by physics), at least this is the case with visual and tactual images ; but since most of our images are images of our own body, this does not make them like our bodily states, and in any case images are not mental states though closely connected with such. I do not therefore understand how we can possibly do anything but maintain a sharp separation between bodily and mental processes, at least as empirically given, though this is not necessarily incompatible with their qualifying the same substance.

Further, despite the tall talk of those whose devotion to physiology has perverted their judgment, it must be

admitted that we know the mental much better than the accompanying physiological processes, and that the former are very much more useful as data for prediction than the latter. We are very much better able to predict action from psychological data, such as motives, than from a study of brain-process or movements of the larynx ; indeed we cannot predict it at all from brain-processes, and when the movements of the larynx were not sufficiently pronounced to result in actually audible words, I hazard a guess that very few, if any, predictions have been made from the latter. No doubt it may be said that we shall in time come to be able to make adequate predictions from these data, but this is only a pious aspiration, and my remarks are true at any rate of the present position. If it is said that in the case of other people at least we only obtain our psychological data behaviouristically, I should reply that even so our predictions normally involve passing from the behaviouristic data to the psychological facts about motives, etc., to which they point, before we can use them effectively for prediction, except in the case of merely habitual action, *i.e.*, action which is not governed by psychological factors at all at the time it occurs.

It must be remembered, that we have no idea what the brain-correlates of psychological processes are like, and even the assumption that there is a correlative modification in the brain corresponding to every psychological modification, though it may be true, goes immensely beyond empirically established facts. The extent to which this is overlooked may be partly due to a confusion that I shall now point out. If the mind uses the brain in thinking, presumably every thought will affect the brain in some way. You cannot use an instrument without affecting the instrument, if only microscopically. But it by no means follows from this that to every difference in a mental process there corresponds some precise difference in a physiological process, so that, for instance, whenever I think of a lion my brain state differs in some uniform way from what it is when I think of a tiger. Yet I believe people often pass from the first proposition to the second

without realizing that they have made a big jump. In the absence of means for observing people's brain-state while they are alive and thinking, I do not see how any of the empirical evidence which would be required to support the second proposition could be forthcoming at all. However, even if this proposition were established, it would be compatible with any of the usual philosophical views about the relation of body and mind. The correlation might be explained either by the theory that they are different aspects of the same substance or by casual interaction between different substances, existentially independent of each other.

But in the absence of theological or ethical arguments for a future life or of empirical evidence of the sort which spiritualists claim to provide, it does seem at first sight as if the most reasonable course would be to say that mental attributes are just attributes of the body. Here is a substance ready to hand. What is the need, it may be asked, to postulate an additional one, the soul? Granted that mental attributes are quite different from physical attributes, they may still be attributes of the body. It is this point of view that it is the main purpose of my present paper to examine. An attribute cannot survive the destruction of the substance of which it is an attribute, so the view could be refuted if we could justify belief in human survival, but I shall not consider here the arguments that may be brought forward for survival, whether religious, ethical, metaphysical, or empirical. What I want to show is that, quite apart from such arguments, the theory becomes involved in very serious difficulties as soon as we take more than a very superficial view of the concepts involved. This is not to prove survival, but it is to remove an important obstacle to the belief in survival, for the chief reason why people suspect survival to be impossible is because they think of mental attributes as just attributes of the body.

This view is not refutable so simply as Behaviourism, for it is, as we have seen, quite compatible with a very sharp distinction in quality between mental attributes and events

and the attributes and events with which the physiologist deals. It may indeed be objected that the mind and mental events are not spatial and therefore cannot be attributes of the body ; but this objection will not be conclusive unless it can be shown, I do not know how, that a spatial object could not have non-spatial attributes. Nor must we suppose that the view necessarily involves what is called psycho-physical parallelism. As this term is most generally employed, it stands for the view that body and mind as different aspects of the same substance do not causally affect each other, though there is a complete correlation between them. If this is included in the view I am discussing, I think it would be a serious objection to that view, for psycho-physical parallelism, in its usual forms at least, involves two most drastic and precariously grounded assumptions, the empirical assumption of perfect correlation between bodily and mental states and the metaphysical speculation that all material things have a mental side. But we might well hold that bodily and mental events were different attributes of the same substance and yet admit that they causally affected each other. If indeed we deny causal interaction, then the most plausible explanation of the correlation between body and mind —(I mean, not the complete correlation postulated by physiologists, though not proved, but the degree of at least partial correlation well-established in experience)—would be to suppose that they were different aspects of the same substance. But the converse that, if they are different aspects of the same substance, there cannot be interaction between bodily and mental events does not follow, unless we define interaction as a causal relation between different substances, thus begging the question. Different attributes of the same thing may assuredly have a profound causal influence on each other. The “interaction theory,” which is opposed to psycho-physical parallelism, is generally understood as covering two assertions (i) that body and mind are different substances ; (ii) that there is causal interaction between bodily and mental events ; and one of these might well be true without the other being so.

While the theory that body and mind are different aspects of the same substance is at least plausible, the theory that there is no causal interaction between bodily and mental events is not. It is on the contrary in conflict with "common-sense propositions" which we cannot help believing to be true, such as "the blow caused him to lose consciousness" or "Hitler's ambition played an important part in causing the war," unless the common-sense propositions are analysed in a very odd way. Without saying that this necessarily proves the theory to be false, it constitutes at least a very strong argument against it. And I have never seen a strong argument for it. I do not think it is a strong argument that mental and bodily attributes are too unlike each other to be causally connected. Since they at least appear *empirically* to be causally connected, we cannot possibly know *empirically* the proposition that they are not, nor could there be inductive grounds for thinking this a probable hypothesis or generalization. If we are to reject interaction, then it must be on *a priori* grounds; and it is very far from clear that we can see *a priori* that very different things cannot interact. We do not know enough about what matter is in its internal nature to know what it can or cannot affect causally. Further, even if we did know that nothing non-mental could interact with the mental, the conclusion might be that what we call matter is really mental, not that the mental and the material cannot interact. The opposition to interaction has been mainly due to the desire to preserve a complete mechanical system of physical causation, but in view of recent scientific developments this project seems to have broken down even in the sphere of physics, where it seemed most triumphant. If the view that the mental attributes are attributes of the body did involve the denial of interaction, it would be in my opinion a very strong objection against the former view itself; but since it need not involve this we may continue the discussion without complicating it by further reference to the question of interaction, which is a different one.

That mental attributes are just attributes of the body

is one of the views that is commonly covered by the term *materialism*, but this terminology is misleading. For, if the body really has mental attributes as well as physical, it is not merely material. In that case it is indeed misleading even to speak of mental attributes as attributes of the body. For, since all the attributes which we lump together under the term mental have now been ascribed to the body, we have no longer any right to speak of the latter as a body rather than as a mind. We had better call it mind-body or body-mind. The only way of classifying a thing is by means of its attributes. To describe the view as materialism, or to say that the mental attributes are attributes of the body, implies that the material characteristics are in some way more important than the psychological, and I do not see how it could possibly be shown that they are. So it is perhaps better to express the view by saying that body and mind are one substance, a terminology which has very often been used by philosophers. But whether we actually use the term *substance* or not, there is no doubt that the notion of attribute implies the notion of a substance which the attributes qualify.

Now, in order to answer the question whether mental and bodily attributes belong to the same substance or not, we need to consider the notion of substance. This point seems to have been overlooked by most people who have discussed the matter, but it seems obvious none the less that, before we can decide whether body and mind are the same substance, we must decide what is meant by substance. Substance is not a common-sense term the meaning of which it might be claimed that we could take for granted as understood by everybody, it is a technical term of philosophy. In common-sense conversation it is used, not in the sense in which it is opposed to "attribute," but as a synonym for "matter" or "kinds of matter," as in "chemical substances," and again in such metaphorical phrases as "a man of substance," or "there is not much substance in this argument."

In the first place, we must note that all forms of "phenomenalism," by which I mean any view which

analyses the notion of physical objects simply in terms of actual or possible perceptions, just cut away the ground from the feet of anyone who seeks to maintain that body and mind are the same substance, in any ordinary sense, or that mental attributes are attributes of the body. My mind is certainly not a collection of the perceptions or the sense-data of all percipients who observe my body, nor are my feelings and thoughts attributes of such a collection, yet this is the way in which my body must be defined by the phenomenalist. My mind is not even identical with or an attribute of my own sense-data or perceptions of my body, for I perceive many things besides my own body. It has indeed been maintained by Lord Russell that the mind was just a group of "sensibilia," by which term he meant entities of the nature of sense-data or images and that the body was also a group of sensibilia, but it would in any case not be the same group, for my mind would include many sense-data and images which are sense-data or images of other things than my body. (I just mention Lord Russell's view in *Knowledge of the External World* here in order to avoid misunderstanding, but I do not mean to imply that it is a phenomenalist view. It is not, for he holds that sensibilia exist independently of being observed by any percipient.) In any case it is obvious that the question whether mental attributes are attributes of the body, as usually understood, presupposes a realist view of the physical body, and must be answered with an unconditional negative if phenomenism is adopted. This is for me not an objection to the view of the mind in question, for I prefer realism to phenomenism, but I mention this in passing, since all philosophers do not share my preference.

Let us now examine the notion of substance, while assuming the realist point of view about the body, *i.e.* the view that the body, like all material objects, exists independently of being perceived in a sense which cannot be reduced to any statement or class of statements about the experiences or sense-data of actual or possible percipients. For the purpose of this article it will fortunately not be necessary to commit myself to one definite view of sub-

stance, but merely to take in order the alternative views and see what effect they have on our problem. Views as to substance fall into two main classes. There is the type of view according to which substance is something over and above its attributes ; and there is the type of view according to which there is nothing in a thing but its attributes, what we call the unity or identity of the thing being constituted by a relation between the attributes. I shall call the former the substratum view and the latter the relational view. The relational view may be expressed by saying that there are no substances, but only events, but I do not like this phraseology ; and even if we denied substance we should still have to ask what the special relation is which connects the attributes and events commonly regarded as making up one substance, and so to analyse one (perhaps a Pickwickian) sense of substance. I shall not therefore press the point that if we deny substance it is nonsense even to suggest that mental and bodily attributes belong to the same substance. I also think that it is, in any case, misleading to describe a substance as merely a series of events or a collection of attributes, for the events and attributes are themselves only abstractions from a continuous individual process. But whether this last point, important as I think it is, be accepted or not it remains incumbent on anybody who denies the substratum view to decide what the defining relation is which constitutes what is commonly called one substance. If what we call a substance is a continuous process, what makes it one process ? If it is a series of events, what links the events ? We cannot say that the substance, mind-body, is just its attributes and leave it at that. We must explain what we mean by speaking of such different classes of attributes as linked together in the same substance.

What is the relation which constitutes what we usually call one substance out of attributes present at different times ? It is not just causality, unless we are prepared to maintain that different substances cannot interact. Nor can it just be resemblance : there are many adults whom I now resemble much more closely physically and mentally

than I resemble myself as I was when I was a baby. In the case of mind, various suggestions have been made as to what defining relation is, but the trouble in many cases is that, while the relation is one which holds between different mental attributes or events and so might conceivably make them into one substance, it cannot also hold between different bodily attributes or events. But it is nonsense to say that body and mind are the same substance if by saying that two bodily events or attributes belong to the same substance we mean something quite different from what we mean by saying that two mental attributes or events do. If, for instance, the relation on account of which we say that our different mental states belong to the same substance is defined in terms of remembering, this relation will be different from any relation which could hold between states of my body or between a state of my body and a preceding state of my mind. If, on the other hand, we say that the relation is not that of remembering, but that of being remembered, it is clear that a later bodily state could not stand in this relation to an earlier mental state or to any other bodily state. Further, I can remember many things which are not states of my body at all, *e.g.* the faces of my friends. ("Remembering" may indeed also be used in a sense in which we can only be said to remember experiences, but then again, it could not connect body and mind.) Similarly, if we held the relation to depend on a particular mode of feeling, it will be impossible to say that the bodily attributes are related by the relation in question, for the bodily attributes are not feelings or qualities of feelings. Again, it has been suggested that the identity of the self lies in the felt continuity of experience within one specious present (conceived as extended into other specious presents, because one such present is always experienced as merging into another), but this is once more something that could not constitute the identity of the body. An advocate of the relational theory of substance may, however, decline to give a definition of the relation at all, but take refuge in the view that it is simple and unanalysable. In that case,

if we are to have any idea of what is meant by saying that two different events happened to the same person, we must suppose that we are sometimes immediately aware of the relation in question, since this is the only way in which we could come to know as unanalysable relation. Now it is at least plausible to hold that we are immediately aware of such a relation in the case of our own minds. I am surely immediately aware of my own identity, and it seems to me on the whole more reasonable to hold that what I am immediately aware of when I know that I am the same self who did so-and-so yesterday is a relation than that it is an unchanging substratum. But it is plain that if I immediately apprehend such a relation at all, it is a relation between different experiences of mine and not between different physiological states of my body. Therefore we still cannot say that the states of my body belong to the same substance as the states of my mind, because bodily states do not constitute one substance in the same sense of "substance" as mental states. If we fail to find a single relation in terms of which to define the unity of the substance, we obviously cannot fall back on defining it in terms of several relations, for it is clear that if we cannot find a single relation which holds both between the different mental attributes and between the different bodily attributes connected with the same person, we cannot find several such relations.

I have discussed this question in terms of the relation between events or states occurring at different times, but the same difficulty arises in regard to the relation which makes us say that different attributes present at the same time belong to the same substance. In this case, we have a relation that may, I think, plausibly serve the purpose both in regard to mental and in regard to bodily attributes, but the relations are not the same. In the case of mental attributes we have the relation expressed by the phrase "unity of consciousness," but obviously this would not explain the sense in which different bodily attributes could be said to belong to me at the same moment. In the case of bodily attributes we may plausibly say that they belong to the

same substance when they are present in the same space, but this would not help with mental attributes. Mental attributes may be present in space in a sense, but certainly not in the sense in which bodily attributes are, as is shown by the fact that it would be absurd to ask questions about their shape, size, or motion.

Another possible course would be to define sameness of substance in terms of particular causal laws. We cannot define in terms of causality as such unless we are prepared to maintain that different substances cannot causally interact, but we might think of causal laws that connected what we describe as events in or attributes of the same substance but never connected what we do not so describe. Thus it is a causal law that if I learn something I tend afterwards to remember it, but there is no causal law to the effect that if I learn something other people tend to remember it, and I have no doubt that we could find many other causal laws connecting events in the same person's mind which did not connect events in different minds. Likewise we might find a number of causal laws which connected different states of the same person's body, but did not connect states of different persons' bodies, *e.g.* if I take violent exercise, my body is thereby heated and tired, but not anybody else's. So we might in terms of such laws give definitions of what was meant by the same body and what was meant by the same mind, but the causal laws would be different in the two cases, and so again the definition would not enable us to say that body and mind are the same substance or that mental processes are attributes of the body. It might be retorted that *e.g.* learning was both a physical and a mental process, and that therefore laws such as that mentioned about learning did serve the purpose, but I do not think this will help. For (i) we know hardly anything about the physiological correlates of learning, and we knew even less still a very short time ago. Yet every child knows that he is the same person who did so-and-so yesterday. The latter proposition can therefore hardly be analysed in terms of any proposition about the obscure correlates in question. (ii) The physiological

correlates remain distinct from the psychological event, and therefore what we really have are still two causal laws, one connecting bodily and the other mental events. What would be wanted is a causal law which connected every mental event in a person with every other mental and every other bodily event in that person. But such a law it seems hardly possible to find. The causal laws connecting bodily and mental processes are from the nature of the case not the same laws as those connecting different mental events, for a law connecting A and B must be a different law from the law connecting A and C unless they can both be deduced from the same more general law, and it seems out of the question to suggest a law from which you can deduce both the causal relation between two mental processes and the causal relation between a mental and a physiological process, unless you covertly speak of the two laws as if they really were one. However, even if we were to think of a law that would do the trick, we could hardly claim that it represented what people were really thinking of when they asserted propositions such as "I did so-and-so yesterday," or "he is the man I met in the library." Lastly and chiefly, we should ask what would follow if it were established that all that was meant by saying that body and mind were one substance was that they were connected by that law. Body and mind would then be the same substance, but it would be a hollow victory, for to be the same substance would then only *mean* "to be connected by this causal law." It would not carry with it any interesting metaphysical conclusions or go an inch of the way towards proving that the mind could not exist without the body. For the causal law could only be established by inductive generalization from our experience, and the fact that the law held throughout our experience in this world, which was naturally limited to embodied minds, would not prove that it held under all conditions any more than the fact that natives of tropical plains always experience water in a liquid form justifies them in concluding that it never can, under other conditions of temperature, become solid.

The above point is relevant to other theories of substance and the self. For instance, it has sometimes been suggested that the unity of the self consists in the different successive mental events which constitute one self having in common a particular kind of feeling-tone ascribable to the organic sensations (though the uniform presence of this feeling-tone is incidentally only a hypothesis lacking empirical evidence). When I referred to this view earlier, I pointed out that it would make the mental side one substance in a different sense from any in which the body could be one, unless the latter were itself mental. It might, however, possibly be suggested that the quality in question was present both as a felt quality in our organic sensations and as an objective physical quality in our body, and that our organic sensations involved the sensing of this quality in the same sort of way as ordinary perception involves the sensing of qualities which are present in matter also when we are not sensing them. It might then be suggested that what made the body and mind of each one of us a substance was the continued presence of this quality, and that, since the quality was the same in both, body and mind were therefore the same substance. I cannot believe that this is what we mean when we apply the term substance to either ; but even if it were, what would follow from the view that body and mind were one substance? Simply that the body and the mind had this quality in common, and nothing more. That they had such a quality in common would obviously in itself be, for instance, quite compatible with the mind surviving the body. The theory would not carry any of the usual implications of the view that mental attributes are attributes of the body.

Let us now turn to a better known definition of what constitutes one mind, namely, the view that it is constituted merely by attachment to the same body. On this view it is the case that a mind could not, by definition, survive the death of its body. But this is in itself an objection against the definition. For, whether it is true that minds in fact do survive the death of their bodies or not, there is at least no verbal contradiction in saying that

they do, if "mind" is used in the ordinary sense ; and, if the word is not being used in its ordinary sense, an analysis has not been given of what is meant by the unity of the mind, and it has not been proved that in the ordinary sense of "mind" a mind cannot survive the death of its body. Further, we require a definition of what is meant by "attached to the same body." If it just means "attribute of the body," then we must go back to the beginning of this whole discussion and consider what is meant by talking of the attributes of a substance. In that case the theory has provided no help in our task, which was just to analyse what is meant by the assertion that the mind is an attribute of the body. If, on the other hand, it does not mean this, but means that the mind is connected with the body in some other way, the view does not maintain that mind and body are the same substance.

Many people would, however, say that the question whether *a* and *b* belonged to the same substance was one the answer to which depended on several criteria and which therefore could not be answered with a firm Yes or No unless all the criteria were present or absent, but was a matter of degree and convenience.. When we are dealing with ordinary physical objects I think this is the best view. There are not, I think, any metaphysical principles or hard and fast principles of any kind involved in deciding where one physical object ends and another begins, *e.g.* at what point a much-patched garment ceases to be the same garment. The body of an animal or man displays a permanent structure and a continuity in change such that it has a special title to be regarded as one thing, even if practically all the matter which makes it up is changed in the course of years. But it would be futile to try to define the minimum degree of continuity required if we are to call something that changes one thing. Similarly in regard to the self it may be said that there are several criteria involved—memory, possession of the same body, continuity of character. If, as is usually the case, they are all present together, we say without hesitation that it is the same person. And even if one were absent most people would

say that it was the same person, provided they were satisfied as regards the other two. Thus, if it could really be *proved* that after A's bodily death there still existed a spirit who remembered in detail what had happened to A, thought of all these events as having happened to himself, and showed a character which strongly resembled A's in all its individual peculiarities, or where it did vary changed continuously from A's character in an intelligible way similar to the changes we all observe in this life, people would say that the spirit was A, although one criterion, persistence of the body, was lacking. Likewise almost everybody would speak of A as the same man as long as he had the same body, even if he had lost his memory or changed in character completely as the result of a sudden conversion or perversion. But, suppose he had both completely changed in character and lost his memory, we should begin to talk about dual personality, though the body remained the same ; and many people have said that there would be no meaning in saying that we survived death if we could not remember anything of what had happened to us before death. But even with only one of the criteria left some people would still go on talking of the same self. Thus McTaggart thinks that we can sensibly talk of survival after death even without memory, provided there is causal continuity with the man's character in his previous life ; and many people, provided the body remained the same, would say that dual personality was only a metaphor or a most doubtful speculation. Now most people who have defended survival have thought that self-identity was something over and above the criteria I have mentioned ; but the view to which I am referring now says it is not and that therefore, if some of the criteria are lacking, the dispute whether it is the same self or not, is purely verbal like a dispute whether we are to speak of the same building if half of it has been rebuilt after being damaged by a bomb. This attitude to philosophical disputes is a very popular one to-day, and I think that as regards substance there is more to be said for it than there is in relation to most questions, at least as long as we are talking of physical objects. What is its

bearing on our question if this attitude is taken in regard to the mind also ? It would lead to the conclusion that to ask whether we ought to speak of the mind and the body as one substance or as two separate substances was to ask a verbal question. There are some criteria which incline us to say they are two different substances, and others which incline us to say they are one and the same substance. If we think of the great qualitative difference between bodily states and mental states, of the difference between the causal laws which govern the one and those which govern the other, of the fact that bodily states can be observed by anyone and mental states only by a single individual, and then in a quite different way from that in which he observes the physical world, of our ability to predict actions with considerable probability from a man's motives when we cannot predict them from his brain-states, we shall speak of the body and the mind as different substances. (Similarly we may even say that the mind of a man does not remain the same substance throughout his life if we dwell on the great difference between different moods and different phases of one's life.) If, on the other hand, we dwell on the causal interconnection of body and mind and on the dependence of the latter on the former for its experiences, actions and even thoughts, and wish to treat them together in science, as physiological psychologists do, we shall speak of them as the same substance. But we cannot say that one of these views is right and the other wrong, only that one terminology is more convenient than the other, and whichever one we adopt it will be merely a different way of describing the same empirical facts, without any implications in metaphysics. If we become convinced that the mind survives bodily death, we shall no longer speak of the mind and the body as being the same substance, because it is clearly inconsistent with the ordinary usage of "the same" to admit that, if A was the same as B, A could continue to exist when B had been destroyed, but our use of the words would not prove anything for or against survival. And, even in the absence of evidence for survival, it would be at least as true to speak of the body and mind as different

substances as to speak of them as the same substance. According to some criteria they are the same, and according to others different, that is all. I do not accept this view of the self, but I need not discuss it further, for it would, as its adherents admit, have no metaphysical implications whatever and could provide no argument against survival.

I have now dealt with all the views of which I can think that define the unity of the self in terms of a relation or relations, and I have tried to show that according to such views it must be admitted that either the relation which constitutes the identity of the mind is different from the relation which constitutes the identity of the body, and therefore the mind and the body cannot sensibly be described as the same substance, or if we do succeed in finding a view of which the above is not true we can still only assert the mind and the body to be one substance in a sense which carries with it no metaphysical implications. We cannot therefore use a theory that body and mind are one substance as an argument to the effect that the mind is existentially dependent on the body, at least as long as we hold any relational view of substance. Can we on the opposed view of substance according to which the unity of the latter consists in the continued existence of a substratum which has attributes but is itself distinct from any and all its attributes? Now the difficulty about such a view is that we cannot form any idea of what the substratum is, for if we take away all the attributes of a thing there is nothing left of which we can think. This is not a deficiency which could be removed by any fresh knowledge we might acquire, for by definition fresh knowledge would never be of the substratum but only of its attributes and relations. It may even be contended that the doctrine is meaningless in the strict sense on the ground that the very definition of the substratum excludes the possibility of giving any meaning to it, all content being by definition missing. (Note the exact reason why I suggest that it may be meaningless : my reason is not that it cannot be verified.). The only way of avoiding such objections would be, I think, if we could claim to be immediately aware of a substratum that was distinct

from its attributes. Now there is one and one case only in which it may be claimed with any plausibility that we are aware of such a substratum, the case of ourselves. At least a possible interpretation of my awareness of myself is to say that I am aware of myself as a pure Ego over and above the experiences this Ego has. I do not say this is the only possible interpretation ; according to another view what we are immediately aware of is only a relation between different experiences which together as thus related constitute the self, and I find it difficult to decide between the two views. In some respects the former seems to give a better account of our experience, in others the latter. But the relational view has already been discussed by me ; so I need only say now that it is clear at any rate that if we accept the Pure Ego view of the self we have given up the view that the mind is the same substance as the body, unless indeed we are prepared to make the body itself into a Pure Ego. It seems then that the view that mental attributes are attributes of the body, if it is both to make sense and to claim or assert anything important, presupposes the substratum view of substance in a form in which we cannot claim to have any idea whatever as to what the substratum is like, for nobody claims to be immediately aware of the substratum of a physical object. This, as I have already indicated, is itself a very serious objection to the view that mental attributes are attributes of the body. I further think that the theory of substance in question would be rejected by most people who are inclined to say that mental attributes are attributes of the body, and so it may be presumed that they would drop the latter view if they realized that it entailed the former. And I do not think that this view of substance can be defended. But, even if it could, a further difficulty arises. For it would have to be admitted at any rate that the substratum of the body and that of the mind are both unknowable, and how we could tell that A and B are the same thing when A and B are both unknowable is beyond my comprehension. So there could be no good grounds for holding the view even if it were meaningful (which I doubt) and not refutable.

It is argued that we can only account for the observable connection between bodily and mental events by postulating that body and mind are one substance, but connection between different events may be due to connection between the substances in which they occur as well as to identity of substance, and how can we possibly distinguish between the proposition that the unknowables are identical and the proposition that they are connected though different, and have ground for saying that the identity of the unknowables is necessary to explain phenomena and a connection of the unknowables which falls short of identity not sufficient to explain them?

Is there any possible intermediate view of substance between the substratum view and the relational view? I should be happier if I could think of one, but I have never been able to form any clear idea of a proposed view of substance which did not resolve itself into one of these two alternatives but would form an intelligible middle view between them. Professor Broad suggests (though he does not develop or defend) a compromise which he calls a Central Event Theory, according to which the unity of a substance depends on a "common centre."* But this centre is itself an event. I have not been able to form a clear picture of what such a theory would mean, but at any rate in the form in which he envisages it a central event would be a mass of feeling, and this theory of substance would therefore only be applicable to the mind and not to the body. In any case body and mind could not on such a theory constitute the same substance, for if there were a corresponding central event in the body it would be different from any central event in the mind which could be conceived as making the latter one substance.

It is sometimes said that, substance and attribute being correlative terms, it is no more reasonable to reject the notion of substance because when you have taken away all the attributes there is nothing left to be qualified, than it would be to reject the notion of attribute because when you have taken away the substance there are no attributes left to

* *Mind and its Place in Nature*, p. 566.

qualify, since to be attributes they must be attributes of some substance. There is wisdom in this, but it does involve the admission that the being of a thing cannot be divided into two separate elements, its substance and its attributes, and once we have admitted this we must admit that the unity of a substance is dependent on a certain relation among its attributes. We need not reject the notion of substance if we adopt a relational view. We should in that case admit the existence of substances as well as attributes, while adding that the former are nothing apart from the totality of their attributes systematically related, just as it must still be admitted that no attribute is more than an abstraction from the individual unity of the substance which it qualifies. But we cannot just say the substance is the attributes, mental and bodily, and leave it at that. For the bodily and the mental attributes are different, very different, qualities, and unless the substance is to be found in a substratum over and above the attributes, the whole meaning of the statement that body and mind are one substance must depend on the relation of these attributes. The doctrine that mental attributes are attributes of the body cannot therefore intelligibly be asserted till the person who asserts it has decided what this relation is on account of which body and mind are entitled to be called one substance, and this has not usually been so much as attempted. I have given a number of alternative answers, and claim to have shown in doing so that no satisfactory ground can be given for the view that mental attributes are attributes of the body in a sense which would contradict the assertion that the mind is existentially independent of the body and can survive the latter's destruction. I have pointed out that there is a great difficulty in finding any relation which could at the same time serve to constitute the unity of the body and also the unity of the mind ; and this difficulty can only be avoided, if at all, by a " Pickwickian " definition of " one substance " and one which would not necessarily imply that the mind cannot survive the death of the body. It is easy to talk glibly about " attributes," but surely we can see quite well on inspection that " having an experience " could not be

an attribute of the body in the sense in which, for instance, the body's shape is. They are not only different sorts of attributes, but incapable of being attributes of the same thing in the same sense of "attribute."

I am aware that in emphasising the sharp distinctness of body and mind I am going against the current of much modern thought, but I take my stand on experience. Mental and physical qualities are quite different as given in experience. Next I shall be asked to explain how such different qualities and events can be connected, as they manifestly are connected. Many people would in fact regard it as the chief argument for the one substance view that it explains this connection. But one of two things seems clearly true. Either causal laws cannot be explained at all, because it is senseless to ask for an explanation except in the sense of bringing a fact under more general laws ; or, if there is an explanation, we cannot (with most laws at any rate) see what the explanation is. In either case I do not see why we should be specially troubled because we have no way of "explaining" the connection of body and mind. Neither can we explain why it is that a moving ball pushes another along with it on impact or that water puts out fire. It is not necessary to postulate in consequence that the two balls are therefore really only one or that the substance of water and of fire is the same. At least, if causal interaction does imply unity of substance, as some philosophers have held, everything we know must be one substance, and as soon as we say this we have altered the meaning of substance in such a way that the assertion that my body and my mind are one substance has lost most of its sting. For then it will be true also that my body and mind and the body and mind of the Nizam of Hyderabad, or of anybody else you choose to mention, are one substance, and the person who holds the one-substance view will not be thereby asserting any special connection between the body and the mind of what we call the same person. My mind might still then survive my body just as it might survive the body of the Nizam of Hyderabad. But in any case, if we adopted the theory that my body and my mind were one substance in order to explain their interaction or apparent interaction, we should

have either done nothing to the purpose or jumped from the frying-pan into the fire. For either no explanation of causal interaction is needed or possible, or, if one is needed, an explanation why it is that the same substance should have such different attributes is needed still more. It is surely a futile argument to contend that, because two sets of attributes are or appear to be related by causality, and they are too unlike each other to be related in this way without further explanation, they must be related in a way more intimate still. We cannot see that there is anything *a priori* impossible in the body and mind causally affecting each other very deeply, and neither can we see, if there were, that the difficulty would be removed by holding them to belong to the same substance, for as I have said earlier, the difference of the attributes cannot be explained away. Most philosophers do not now hold the view which I have elsewhere called the entailment theory of causation, *i.e.* the view that there is a logical connection of entailment between cause and effect. But even if one holds this theory, as I am inclined to do, it makes no difference to the present argument. For (1) it is not the case that the relation of entailment can only hold between the like. Lines are not at all like angles, yet the possession of three lines by a figure entails the possession of three angles; colour is not at all like shape or size, yet colour entails shape and size. (I am assuming the "synthetic" view of entailment, *i.e.* that there can be synthetic *a priori* propositions, but then anybody who did not assume such a view could not possibly hold the entailment theory of causation and therefore could not rightly use the argument which I am criticizing.) In all causation there is present some degree of unlikeness between cause and effect, otherwise causation would not involve change, but it is difficult to see how we can set limits to this and say that a certain degree of unlikeness is compatible with causation, but not a greater degree of unlikeness. Wisdom's principle of generic resemblance, as the author admits, does not exclude interaction between the bodily and the mental, even if it does exclude production of the mental by mere matter.* Despite their unlikeness

* v. *Mind and Matter*, p. 93 ff.

many idealists of high philosophical ability have at least thought they could see that matter entailed mind, and even if we do not agree with them I do not see how we can show that there cannot be entailment relations between mental and material occurrences if there can be entailment relations between different occurrences at all. I assert "dualism" in the sense that mental and physical attributes are very unlike, but not in the sense that there can be no relations between them. (2) If it is the case that causal relations cannot hold between very different kinds of things, the conclusion is not necessarily that body and mind are one substance. If there is a difficulty and the difficulty can be removed by the supposition that my body and my mind are the same substance, it could also be removed by the supposition that, though not numerically the same substance, they are two instances of the same kind of substance, *i.e.*, that my body, though not the same substance as my mind, is really mental also, as was held, *e.g.* by Lotze and, in a sense, Leibniz, or at least has some mental, as well as physical, attributes. If the difficulty is that things of very different kinds cannot interact, it is clearly removed by this view. If it is objected that the same thing could not have two such different sets of attributes as those we call mental and those we call material, that would be equally an objection to the view that my mind and my body are identically the same substance. If, on the other hand, one does not assume the entailment theory of causation, it is plain that there is no difficulty about the causal connection between bodily and mental events. There is no explanation, but it just does not want an explanation. It may be a surprising fact that our minds should be constantly and closely associated causally with a quite different thing, our body, but then we have no right *a priori* to expect any one kind of fact rather than any other in this connection. In any case the most even a rationalist metaphysician can hope to do is to explain the very most general features of the world, such as the existence of some regularities or the presence of good and evil ; he cannot hope to explain the particular causal laws which operate in the world. I do not say that there cannot be an explanation, but that the

explanation is beyond our power. However most philosophers nowadays hold that the very question as to the explanation of a causal law is meaningless, and if so *a fortiori* they have no right to put forward any theory of mind and body as an explanation of their correlation.

Some thinkers would hold that, though body and mind could not be appropriately said to constitute the same substance, they constituted a special kind of unity much closer than that between any two physical objects. But such a view could only lead to the conclusion that the mind is not existentially independent of the body if the existence of the mind could be seen logically to entail the existence of the body, and how can we possibly see that? So far from there being a logically necessary connection perceptible by us between the mind and its bodily concomitant, the connection between the two has remained, by general agreement, more, if anything, not less, obscure than other causal connections. And, unless we can see a logically necessary connection between mind and body, I do not understand how we can be said to see that they constitute such a close unity. In general I should confront those who say that body and mind are so closely connected that we cannot survive bodily death with this dilemma. Either they must maintain that they can see an *a priori* necessary connection between bodily and mental events, a claim which surely few would make, or they must admit that they have no ground whatever for their view. Inductive ground there cannot be since, apart from psychical research which might give a positive but could not give a negative answer to the question (since absence of communication cannot prove non-existence and a communicating spirit cannot testify that it does not exist), there are no inductive means of deciding whether the change in the body at death and the absence of signs of mental activity are due to the destruction of the mind or to its departure.

What I have said in this article is not intended to exclude the possibility that it may turn out that we cannot analyse propositions about people other than ourselves without reference to their bodies. For (except perhaps in the rare case of telepathy) I can only perceive them through their

bodies and I cannot therefore fix the meaning of their names or of statements about them without reference to their bodies. The only way of defining Smith's mind for me who am not Smith seems to be as the mind connected with Smith's body. On the Pure Ego theory this definition will become "the Ego which owns this body," on a relational theory "the experiences connected with this body at the present moment and all experiences related to this experience by the relation r ," r being the defining relation of selfhood whatever that relation may be. And it may be admitted that propositions about people commonly refer as much to their bodies as to their minds. "Smith is in the room" or "Smith is in bad health" are primarily propositions about Smith's body; "Smith is happy" is itself about Smith's mind not about Smith's body, but I cannot understand what "Smith" means except by reference to his body. For, even if I have never seen Smith and derive my idea of him from hearsay, I can only form that idea by reference to bodily actions of his which other people have observed, though I interpret them as signifying mental states more or less like my own over and above the body. But all this is no reason for saying that survival of bodily death is a self-contradictory notion. For (1) supposing it could be shown even that it was self-contradictory to say that Smith would survive the death of his body on the ground that the meaning of "Smith" included his body? What would the conclusion be? It would only prove that people who talked about survival often expressed themselves in a self-contradictory fashion, it would not prove that what they meant to say was self-contradictory. The most that could be shown would be that what they expressed by saying that Smith would survive the death of his body, would be better expressed by saying his mind would survive the death of his body. (2) I have suggested that Smith's mind cannot be defined by me without reference to his body, but my mind can. For I am immediately aware of my present experience, and my mind can be defined either as the Pure Ego which has that experience or, on the relational view, as that experience together with all the other experiences related to it by relation r . And no doubt everybody else

could define his own mind in like manner. (3.) We have seen that for a person other than Smith the definition of Smith's mind must include a reference to his body, for it is only through the latter that we can identify him. But it does not follow that it is self-contradictory to say that Smith's mind can survive his body any more than it would be self-contradictory to say that the owner of a particular house may survive the destruction of the house even if I know nothing about the owner of the house except that he owned such-and-such a kind of house and any features of his character which I might infer from my knowledge of the house. Similarly it would not be self-contradictory to say that after Smith's death there will still be experiences related to his present experiences by relations like those which relate his present experiences to his past experiences, which is what survival would mean on the relational view of the self.

One effect of all this discussion is to show that we cannot disprove survival of bodily death or show it to be improbable by the use of arguments tending to show that the mind is only an attribute of the body. This does not of course prove survival a fact, but the last president of the Society for Psychical Research (Professor H. H. Price) has expressed the view that one of the chief obstacles to the successful development of the latter branch of study is the prevalence of ideas that theories such as that of survival are not philosophically respectable or even meaningful, and I hope the present paper may do a little towards dispelling such ideas. One of the principal causes which lead people to look on survival in this way is the belief that the mind is an attribute of the body. Another is the idea that survival is unverifiable and therefore meaningless, a view which may be disproved either by attacking the verification theory, as I have done before now, or by showing that it is at least conceivable that adequate evidence for survival might some day be produced. Another objection to survival is the empirical evidence of the way in which bodily injuries affect the mind and character, suggesting that the mind is dependent on the brain for its ability to think and not only for its outward expression of the thoughts in words and

action, but, as McTaggart said, to argue that, because under present conditions we cannot think without the brain, we shall be unable to think when we have no brain might be like arguing that, because I cannot see the sky now without looking through the windows, I shall be unable to see it when I have gone out of the house because I shall have no windows to look through. It is also sometimes objected that we cannot imagine a self without bodily sensations of some sort. There is, however, nothing logically impossible about the self having some body of another sort after death, as is believed both by the spiritualists and by Christian orthodoxy (though according to the latter only after an intermediate period in which the soul is in an "incomplete" state because it has no body). Further, since we cannot see any logically necessary connection between the sort of organic sensations we have which we associate with our body and the physical body itself, it is perfectly possible for anything we can tell that we might continue to have some such sensations without any body, as I might have visual images in the dark without anything to see or conceivably might have been endowed with the power to perceive matter without the use or need of any physical sense-organs at all. Who knows that we have not this power after death? We cannot imagine an experience which does not contain something qualitatively like the sensory feelings we have on earth, but could I as a baby have imagined my present experiences of thinking about philosophy? That we cannot form any concrete idea of what it would be like in respects in which it differs from this life is no argument against survival, for supposing survival to be a fact it would still follow from the nature of the case that owing to our lack of experience we could have no such concrete idea. The worst that can then be said is that survival is unproven; the philosopher cannot show the notion to be meaningless or actually refute it. Whether he can also give good positive arguments for it or frame any hypotheses which will cast light on its nature if it occurs and perhaps even be helpful to psychic researches, I shall not here discuss.

III.—ANALYSIS OF WICKEDNESS.

By A. H. HANNAY.

THE success and prosperity of many who have been regarded as wicked has been the constant subject of bitter comment throughout the ages. And it can scarcely be disputed that according to ordinary standards some wicked people have prospered—from a notorious historical figure such as Cæsar Borgia to the confidence trickster who retires from business and settles down in a district where he is altogether unknown—and that some good people have undergone great wrongs and tribulations. Dean Inge has recently written, “The world is a quack’s paradise. Get on ; get honour ; get honest ; ‘as long as thou doest well unto thyself men will speak good of thee.’ The true prophet, if he escapes being stoned, crucified, burnt, liquidated, or tortured in a concentration camp, will have leisure to reflect on the noble maxim of the London escalators ; ‘stand on the right and let others pass you.’”

It is, of course, partly a matter of definition, but the definition will not be merely a decision as to the proper use of words. All uses of the word ‘wicked’ have in common an exhortation or prohibition, but the process of defining is an attempt to get agreement as to what ought not to be done and why. The definition is itself a process of discovery and not merely a naming of facts not in dispute.

Wickedness is often considered to be a quality attaching to a breach of a rule or convention quite irrespective of any circumstances or results. This is usually an outcome of religious doctrines, but it may be due to a philosophical theory ; for instance the intuitionist theory of ethics might be urged in support of a belief that killing is bad in itself and always to be avoided.

In cases of this kind, where the wickedness consists in the breaking of a rule or convention, it may well happen that the wicked person thrives and leads a happy life. The alleged wickedness of his action will not necessarily produce bad results either for other people or for himself.

In my view no rules of conduct can be regarded as universally binding and they cannot be used as criteria of goodness and wickedness. Neither a polygamist, nor a person who fights in a war are *ipso facto* wicked. It all depends on the circumstances. The wickedness if any, would be due, not to the infringement of a rule, but to the circumstances surrounding the infringement of which the doer was aware. It is not the fact that a person has several spouses that makes the action wrong, but that under western conditions this normally creates a lot of unhappiness and social dislocation. The act of engaging in warfare is not itself necessarily wicked, but a war is wicked if it is started without provocation and is waged in order to gain an advantage at the expense of innocent persons.

Rejection of the claim of abstract rules or standards to universal and absolute validity does not involve rejection of such rules as a regulative influence and guide to conduct. In most modern situations it is wrong to take human life and there are numerous similar injunctions which represent the accumulated experience of centuries of trial and error. If they should not command unthinking obedience, they are nevertheless to be broken only in exceptional circumstances. In normal circumstances the difference between the way of life of a person who believes in absolute rules and one who does not may be slight. But in exceptional times, for instance in revolutions or wars, the points of disagreement may assume paramount importance.

The value of an action depends on a whole situation, on the act and its consequences. The distinction between an act and its consequences is by no means so clear cut as it is often supposed to be. An act of killing which rids the world of someone who is a menace to his fellow men and a source of untold suffering and misery is from the

start different from an act which leads to the death of a human benefactor. The act does not consist merely of the killing ; it includes also the intention, and this stretches out in imagination to what are called the consequences. From the very start the author thinks of the consequences and this affects the intrinsic character of his action.

Not only is it difficult to say exactly where an action ends and the consequences begin, there is also an inversion of the actual time sequence when an action is planned in the imagination. For the idea of the consequences precedes that of the immediate act.

It is true that the intention and the actual consequences rarely coincide completely and sometimes a bad intention issues in a right action, that is to say one having good consequences, and a good intention sometimes finishes up with unfortunate or bad consequences. Our lives however consist mostly of repetitions and it is scarcely possible for someone to go through life full of good intentions and yet producing most of the time bad or unfortunate results. The imagined consequences will normally approximate to the actual consequences ; good intentions will have good results and vice versa.

If it is agreed that the line of demarcation between an action and its results is vague and arbitrary, the dispute between those who believe in intrinsic values and the utilitarian school loses some of its point. The intrinsic value flows over into what may be regarded as the consequences and equally the value of the action partly depends on that of the consequences.

To take a simple instance. A man with a wife and family to maintain decides to leave his family in order to go in for painting and the roving, bohemian life of an artist. Now, by itself, the decision to devote his energies to art may be quite praiseworthy, but the abandonment of the family throws a shadow over the episode. Whether or not the family is left financially stranded, its desertion must be a cause of a good deal of unhappiness.

I have in mind the case of the painter Gauguin, but there is no need here to discuss any case in detail. The

material point is that there cannot be a piecemeal valuation. The episode must be considered as a whole.

Of course, if it is a mistake to insist on the intrinsic value or evil of an action in complete disregard of the consequences, it is equally a mistake to believe that taking into account the consequences gets us away from intrinsic values. It may enable us to avoid the pitfall of abstract rules or codes, but the value of the consequences is no less intrinsic than that of the action itself. Even if it is believed that the only value is pleasure, that is still something at which we halt as an end in itself. The hedonist may choose a different way of life from the moralist bound by rules, but he too is in search of intrinsic value.

Everyone must want something in and for itself, so long, that is to say, as he continues to want to live. There may not be a single all-embracing want, but several of equal importance, and from time to time the wants or values may change. We may at one time in our lives seek pleasure, that is easy diversion, and later we may decide that that is not what we really want. Or we may be driven by ambition, only to discover that its satisfaction is hollow unless there are other aims not rooted in the desire to win fame. Ambition to make new discoveries, to create works of art, to win renown as a statesman will only be satisfying if the personal self-mirroring element of the ambition does not usurp first place.

Knowledge, imaginative creation, goodwill, they are perhaps an old-fashioned and slightly hackneyed trinity. Yet it is not easy to supersede them by any generalisation more basic and permanent. That they constitute the ultimate values is not a truth that we perceive as a self-evident proposition, nor is it the product of a direct intuition. It is a conviction derived from our general experience and reached by reflection in which willing and feeling play a part.

We are only concerned here with the positive values in order to see as clearly as possible the nature of the negative values, that is to say the nature of evil and wickedness. Now there is a type of activity which shows no

respect for the claims of truth, beauty or goodwill, and we of the twentieth century are rather more familiar with it than our predecessors in the nineteenth century. We are also more familiar with its results. We have a fairly comprehensive experience of the whole process. It is this type of activity which is defined as wicked and the ground for this consists not merely in the immediate act, but in the whole series of events which follow from it. The contention is that they cannot really be separated and that the consequences are inevitably of a destructive character. It is not a matter of choice between one set of aims which are coloured good and another set which are coloured evil, but of an alternative between, on the one hand, a developing organism, rich with all kinds of fulfilment and promise, and, on the other hand, a truncated growth, doomed to wither and one day to collapse altogether.

A wicked action is therefore defined as one that aims at the immediate advantage of the doer at the expense of goodwill or knowledge or imagination (or if you prefer it, beauty). A war is waged for the aggrandisement of a single nation regardless of the misery it will bring upon untold multitudes ; an attack is made upon a new discovery just because it upsets some established institution or vested interest ; a work of art is vilified out of spite or jealousy or, on a larger scale, the creative imagination of a whole people is stunted and starved because it would be a danger to a tyrannical régime.

Now those responsible may succeed and prosper for a time. It may be quite a long time ; but the prosperity will be a diminishing quantity and cannot endure. Not because goodwill is bound in the end to reappear ; there is no inevitability about that ; but because these types of action lead slowly to disruption and degeneration. Even if there were no good will left the wicked would not continue indefinitely to enjoy even an external show of prosperity. For the social organisation would rot and revert to primitive brutality. The persistence of goodwill and of a love of truth and beauty, is not something that occurs automatically, a mechanical progress determined by

immutable laws (that was the mistaken assumption of nineteenth century believers in progress) ; it is up to us. But there is an inevitability in the ruin wrought by evil, as it has been defined.

Any proof of this thesis must be based on experience, either historical or personal. It might be supposed that the historical would be the most satisfactory and convincing. Personal experience, however well it is weighed up, cannot carry the same authority as the objectively ascertained facts of history. Yet the difficulty with history is that although it is very rich material, we can neither experiment with it, nor can we be certain that the various factors have been properly analysed. In scientific experiments the material can be isolated and subjected to selected influences and the results carefully observed. In history there is always a multiplicity of operative factors. For instance there have been numerous examples of oppressive governments and evil-minded tyrants, but they have been accompanied by better elements which have partially counterbalanced and stopped the rot. And it is always possible to maintain that the rot was never threatening or was due to other causes. Still more is this the case with the study of the decay of empires and civilisations.

For this reason there is a certain advantage in the consideration of hypothetical situations and the discussion as to how they would work. Although the situations are hypothetical, the conclusions are founded on experience. The economic man is a hypothetical creation, an abstraction of certain human tendencies, but from such an abstraction inferences can be drawn which are applicable to actual situations.

In the same way we can imagine a man whose whole aim is power, more and more power. Imagine, not one, but many such men, all together in a single group. By definition there is no trace of good will in them, no compassion or generosity. They are one and all consumed with the lust for power. Now it is quite certain that they can no more live peaceably together than a collection of bulls. They will fight, intrigue and deceive. They will

make with each other provisional agreements which will be broken as soon as it suits their drive for power.

Suppose, living in the midst of these persons who are dominated by the idea of power, a number of other persons of the "safety first type" that Hobbes regarded as the corner stone of the state. They desire, not power, but peace and comfort, and at any price. They too are completely devoid of generosity or benevolence. They seek enrichment, but not aggrandisement.

Left to themselves these prudent people might come to an arrangement which would endure at any rate for a fair length of time and would ensure mutual comfort and security. But the other group are in the way and the only safe course is to serve whosoever seems at the moment to be the stronger. There is no question of loyalty, or of ideals or principles of any kind. The sole consideration is expedience.

The result is an atmosphere of sycophancy, corruption and treachery, of secrecy, suspicion and double dealing.* And in such a society there cannot be either peace or stability. Sooner or later disintegration will set in and the society will break up into smaller units, who fight one another and are themselves devoid of internal harmony.

History does not provide any complete examples of societies of this kind, but it does present instances both on a small and on a large scale of wicked regimes and of predatory empires. And they have all headed for disaster.

The period of forty years in English history in which the Wars of the Roses were waged provides a striking illustration on a small scale of the destructive effects of gangsterism. The Barons ruined themselves and their retainers and the country itself only escaped disaster because it stood largely aloof from the struggles. Social life and trade went on in spite of the menace of the wars. But in one important aspect the social organism suffered

* "I had the conviction that this German influence was leaving behind it corruption, bitter hatreds and vendettas, and was steadily undermining all the moral standards of the life into which it had instilled its poison."—Lord Templewood in a recent speech on German influence in Spain.

severely. For the administration of justice was practically suspended. If a jury gave a verdict which displeased a baron the jurors were set on and beaten and often murdered. Throughout England might was right and among the barons themselves murder, treachery and cruelty were the order of the day. Clarence, "false, fleeting perjured Clarence" betrayed his brother to Warwick and then Warwick to his brother. Warwick himself fought first for Yorkshire and then was killed fighting for the Lancastrians. The English aristocracy bled itself to death.

On a larger scale the sudden growth and early decay of the Spanish Empire is an instance of an organisation which was founded and maintained on the principles of Machiavelli and of a colonial power which had no other aim than the ruthless spoliation of the conquered countries. It is true that at their inception the other colonial powers were not actuated by any very different motives, but the Spaniards were peculiarly brutal and inhuman. It is true also that Spain commissioned Columbus to sail in search of land the other side of the Atlantic after other countries, including our own, had turned down the project, but when he did discover this land the Spaniards imprisoned him because he had failed to produce straightaway all the anticipated wealth.

The Spaniards had one other preoccupation besides the search for gold. They were deeply imbued with religious bigotry. And this manifested itself in the ruthless persecution and suppression of the reawakening passion for scientific discovery and of the new intellectual probity which gave birth to modern science and the modern outlook.

For a time the Inquisition had its way and prevailed, but Spain became an intellectual desert, and finally in the eighteenth century it had grown so hopelessly degenerate and lacking in culture and enterprise that foreigners had to be called in to carry on the government and save the industries from collapse.

Wickedness, as it has been defined, does not only bring disaster to the community ; it also harms the doer. And

this is not just a belief which assists moralising ; it is supported by psychology, and the very profound psychology that appears in great literature.

As with societies and nations, it may take time for the harm to become apparent. The wicked person may succeed in his immediate aims and may acquire without hindrance all the outward trappings of happiness. In himself too he will have the satisfaction of having achieved what he set before himself to do. This may have been the outcome of mean motives, such as greed or pride or jealousy and he may have had to do cruel acts, ignoring the misery of others. But, if he has no trace of a conscience, this satisfaction will be fairly complete. Others may suffer, but he will not be moved by that. All that he will fear will be his own suffering, but that may very soon become a tormenting fear.

If he has risen to power by crushing others he will be haunted by the uncertainty of his tenure and by fear of the encroachment of others and of their vengeance. Always a lonely person, he will grow lonelier still ; always moody and liable to fits of irritability and moroseness, he will tend to be stricken with the disease of Saul and he may not always find a David to soothe him with music.

He may die surrounded by wealth and luxury and adulation ; yet he will not have been happy. He may have known passion, but that soon tires and changes to boredom or even hate, and he will have known only too well the fawning flattery of followers who are actuated solely by self-interest and fear and will not hesitate to cold shoulder their master if misfortune befalls him. He has known this and has secretly despised those who have cultivated his acquaintance, while he has envied more generous natures who have had less worldly success than himself but have got more genuine happiness.

The miser heaps up his riches to no purpose, for he makes no use of them. The dissolute man is driven from one sensuous indulgence to another and never discovers the genuine love that would set his craving at rest. The charlatan may win easy popular successes, but he has no foundations and is always feigning a self-confidence

that he does not really possess, and he gradually builds up serious neuroses.

These are all rather trite examples, but the very fact that they are trite is in favour of the argument. Its confirmation does not depend upon the scrutiny of special cases.

Philosophers have, on the whole, paid more attention to the development or reputation of views based on the relativity of pleasures and pains and of values in general than to psychological situations. They have tended to assume that the mental state of the person who composes a thoroughly sentimental poem is on the same level as the state of the genuine poet; that the satisfaction felt by the villain does not differ widely from that of a person of good intentions. In both cases it is assumed to be just pleasure. But pleasure is an abstraction.

Starting from abstract premises, an argument about the relativity of pleasures or of values can proceed indefinitely without ever coming to grips with the actual processes of the mind and heart. On the other hand, literature, which makes a study of individual psychology, tells quite another tale. Although cast in the mould of fiction, its analyses are by no means fictitious. They throw considerable light on our mental processes and the complexities of our desires and purposes. When he wrote "Macbeth," Shakespeare was not picturing a situation which had no relation to actual life. He was describing the emotions of a murderer, and murder was a more common event in Shakespeare's time than it is to-day, at any rate in this country.

Murder, of course, is an extreme instance of villainy, but literature is packed with subtle and illuminating analyses of the distress and anxieties of maladjusted and self-centred persons, even in the midst of apparent success. They show that such people do not have happy lives. But it is not so much the unhappiness that matters as the haunting sense of failure. Vanity of vanities is the final cry. People in love with life do not ask what is its meaning or cry out that it is empty.

We have therefore two contrasting and opposing groups

of actions. On the one hand there are all those which promote goodwill and knowledge (including all the activities which science makes possible) and which intensify and develop the imagination ; and on the other hand those which oppose these achievements. And the difference between the two groups is not merely that one is labelled with the colour "good" and the other with the colour "bad" ; there is a difference in the organic structure of the two groups. Whether or not our judgments of value are objective, there is an objective difference in the two ways of life. It is not a question of relative tastes, I like this and you like that, but of a choice between two roads, one of which leads to a country full of infinite possibilities of development, and the other to a wilderness which resembles very much the mediæval pictures of the inferno. It is a choice between heaven and purgatory, but both are on this earth. The sanction both of good and bad ways of life is here on this earth, and not, as mediæval thinkers believed, in some future life.

It may be objected that my account of the undesirable consequences of what has been defined as wickedness is unduly optimistic and indeed melodramatic ; that things don't actually happen that way and while such wickedness may cause unhappiness in some quarters, it can build quite a solid social edifice which may "last a thousand years," however evil it may be, and that in fact this has happened in history.

Very few societies, however, have been constituted completely of wicked elements. In the vast majority there has been a core or substratum of worthier characters and what has really happened is that the wicked people have lived parasitically on the work of these comparatively honest people. No great business community could carry on successfully for a minute without an assured basis of mutual trust and honourable dealing. Given this sound basis, a few scoundrels can flourish without causing any serious damage. But to say that the world is a quack's paradise is like saying that the only healthy and successful elements in human beings are the disease germs. Honesty may not always be the best policy from the point of view

of the immediate gain of the individual, and there may even be occasions where a strict adherence to the normal rules of honesty would not be morally right. But in the vast majority of cases honesty is the best policy from the point of view of the general community, and it is for this reason that it is good and right to be honest.

This problem of the nature of wickedness and of its success is not an altogether academic one. It might appear academic because, apart from a few exceptions, there is not a great deal of disagreement between the protagonists as to the kinds of activity which are wicked, and that being so, it can be argued with some plausibility that if you agree as to what is wicked, it does not matter much whether you think it wicked regardless of consequences or because of the consequences, or whether you believe that the world is a "quack's paradise" or that this is altogether too narrow a view. But it is not an academical problem, because it does have a definite practical effect if it is believed that the pursuit of wicked activities is consistent with the possession of most of the good things of life, except the quality of saintliness which, after all, is a matter for a chosen few. It is not a mere coincidence that many people who hold this view argue that there must be some "sanction" for wickedness in an after life: otherwise justice will not be done and there is no particular encouragement to lead a good life. It requires only a short step further to attach a certain glamour to the life of wickedness and to regard it as "real life," as contrasted with the unworldly "escapism" of the saint. The truth, however, is that the life of persons who have no respect for goodwill or truth or imagination and are driven by power lust and are the prey of their impulses and passions, is nasty, brutish and short. So far from enjoying life to the full they miss all the fulness and richness of the life both of the body and of the spirit.

IV.—THE ATOMIC THEORY AS METAPHYSICS AND AS SCIENCE

By A. D. RITCHIE

IT has been the fate of the atomic theory to survive for centuries as metaphysical theory with no definite scientific standing, then in the nineteenth century to become scientific. In so doing it underwent considerable changes without in any way losing its metaphysical character. Its history is here briefly sketched as an illustration of the kind of relation that is to be found between speculative metaphysics and science, and within science between theory and practice. For this purpose it has the advantages that it lies within the relatively stable and well-explored realm of physical science ; that it is easy to understand and, though mathematical, requires nothing more advanced than the multiplication table ; and the evidence on which it is based, though very complicated, is in no way difficult to grasp. Experiment in chemistry, unlike experiment in modern physics, does not require for its understanding difficult theory or acquaintance with the functions of elaborate forms of apparatus. In short, it is science that is easy to understand now it has been discussed, though it was difficult to do for the first time. *Prima facie*, then, I am concerned with innocent historical statement, but my aim in setting it out is polemical; namely to try to counteract some of the mythology of science that has been industriously propagated by Positivists, old and new. In spite of that, I hope that what I have to say is correct in fact ; and it is as historical fact I should like it judged.

Matter, body, or corporeal substance meant much the same thing to everybody until recent scientific theories complicated things. It meant, first of all, that which is apparent and common to the senses of sight and touch, which occupies space and moves in space. For physicists only spatial

properties were of importance, others were no more than diagnostic signs. Now, few people have been content just to observe the observable properties of matter; most have also held theories about it. *A priori* there appear to be two possible theories about the spatial properties physics deals with. (1) Matter is infinitely divisible and all space is filled with some matter everywhere, though its density varies between the densest solids and what appears to our senses to be vacuous. (2) Matter consists of discrete units of finite volume separated by empty space, so that the apparent continuity of solid matter conceals discontinuity of its minute parts, and emptiness also. I shall call the first the Plenum Theory and the second by its familiar name, the Atomic Theory, though Corpuscular or Particulate Theory would be more correct, now that "atom" has acquired a restricted technical meaning. In the past the two theories were usually taken to be mutually exclusive and to exhaust the possibilities. Both theories are metaphysical in origin; that is to say, they spring from the distinction between appearance and reality and comprise doctrines about hypothetical real entities which do not appear in sense experience. The arguments for them are attempts to supplement and correct experience by logic. They are to the effect that reality must be such and such (whatever appearances may suggest to the contrary) because anything else is inconceivable. If there is an appeal to experience it is to its general character much more than to specific limited sets of facts.

August Comte supposed there was an antithesis between metaphysics and science and on this account many of his followers refused to accept the atomic theory. There is, of course, no such antithesis and nothing to prevent a metaphysical theory becoming scientific, though it necessarily changes in the process; and that has been how many most respectable theories have started their careers. All that is needed is to deduce from the theory specific facts which can be verified or contradicted by experience; a process that may have to wait a long time until the advance of scientific technique makes it possible. If the advance in technique springs from sources outside the original scope of the theory,

then the character of the technique used in verification will change the character of the theory.

The method of establishing a theory by refuting rival theories with purely rational arguments may be conclusive in mathematics, but elsewhere never completely so. Nevertheless the supporters of rival metaphysical theories are anxious to point out incoherences in the others. The incoherences in their own theory they are not so fussy about. Thus supporters of the plenum theory pointed to a number of defects in the atomic theory. (1) The notion of things being separated, yet separated by nothing, seems absurd ; but that is what empty space must mean. (2) If the supposed atoms have a finite volume they have at least spatial parts, are potentially divisible, therefore not strictly atomic. If they have no finite volume but are of the nature of massive points, all equally must possess infinite density. This not only seems absurd, but disposes of the possibility of distinguishing between light and heavy atoms as is usually done in terms of density. (3) Atomic theory presupposes that atoms interact by impact ; but if two atoms approach, touch and separate, then at the moment of contact they must be deformed (or there is no repulsion). Deformation of a composite body by change of relative position of its parts is conceivable, but not deformation of a simple body. Therefore real contact between simple bodies is inconceivable. The alternative, in any case necessary for a massive point theory, is that they act at a distance by repulsive forces. But action at a distance implies some sort of plenum between centres of force ; just what the atomic theory is designed to avoid.

Atomists ignore these difficulties because of certain attractive features of their theory. The chief of these is that it enables us to visualize the minute structures of things using the natural assumption that all physical operations are like our own operations, by the process of pushing things about. Pushing requires contiguity in space between pusher and pushed, and also room or free space in which movement can take place. If the visualizing process is carried through systematically, then the classical atomic theory necessarily crops up. Separate, distinct, indivisible entities separated

by empty space are unavoidable. The only reply to the atomist is just to refuse to visualize and analyse at all. Thus the strongest atomist argument is based on the compressibility of gases. The smallest drop of water, when it is introduced into an evacuated vessel however large, evaporates and expands into every part and can again be compressed into its original volume. Once you start visualizing the expansion and compression in terms of the minute structures of water vapour the atomist's case is granted. To oppose him you must be content to state large-scale facts ; that solids and liquids have specific densities only slightly altered by pressure, while the density and pressure of a gas vary together so that its density is always the least possible. So long as this refusal is maintained atomist arguments cannot be pushed home ; neither the one for compressibility, nor the two older ones that a plenum makes motion impossible and that without atoms action at a distance has to be admitted. The reply to the first, the argument about motion, will be considered later. The reply to the second is that a thing is in the place where it acts and if it appears to act at a distance that is because what seems its limited volume and position is merely a nuclear volume and position of more intense or denser occupation, but that to some extent it is also elsewhere; namely, wherever action occurs. In fact, anything may to some slight extent occupy any amount of space. If a magnet attracts a piece of iron, the magnet also *is* where the iron *is* ; in fact, as far as the magnetic field extends.

There is one more atomist argument to consider at this stage. Plenum theory involves a denial of the sharply differentiated specific properties which appear to distinguish certain kinds of matter from one another. If everything to some extent is spread everywhere, then everything must also be to some extent of every kind. All cheese would then be to some extent chalk (as chemists will admit) and also all chalk to some extent cheese (as they will not admit). Atomic theory implies the opposite; namely, that, in principle at least, one kind of substance can be completely separated from other kinds. It was, in fact, through the study of the specific properties of different kinds of substance, that is to

say through experimental chemistry, that the atomic theory in the hands of Dalton became a part of science. But it must be remembered that Dalton first came to chemistry from the study of the physical properties of gases, and his contribution was essentially the linking together of these two branches of science.

Before dealing with Dalton let us take the theory in its ancient form and consider the arguments. These are to be found in the first book of Lucretius' *De Rerum Natura*. There is no need to consider earlier atomists because they probably used the same arguments. Lucretius shows no signs of any knowledge of the science of his day ; the Geometry, Astronomy, Mechanics and Optics of the Alexandrian school. Lucretius is expounding dogma and is doing it " for edification " ; he is not interested in investigating anything. He propounds a cosmology which explains everything in terms of the laws of impact without examining the processes of impact experimentally or mathematically, and having in fact very queer ideas on the subject (II, 95-99). It is not very clear what information about Optics was available at Alexandria in the 1st Century B.C. but there must have been enough available to any genuine enquirer to contradict Lucretius' remarks on curved mirrors (IV, 311-317). Again, Lucretius' astronomy seems to remain at the stage of Ionian speculation of the 5th Century B.C., as would appear from the curiously vague remarks about the sun and moon (V, 656 *seq.* and 751 *seq.*), written at a time when quite reasonable estimates of the distance of these bodies had been made. The statement that sun and moon are just about the size they look (V, 564-591) is intelligible in terms of a pure phenomenalism after the modern fashion, but is nonsense in terms of any mechanical cosmology, such as atomism, or in terms of 3rd century astronomy. In addition, there is confusion of thought in the notion of a downward stream of atoms in an infinite universe (I, 1008 *seq.*, II, 216 *seq.*). This should suffice to show that Lucretius is no scientist and even this would be unnecessary but for the misleading statements of Professor Farrington in his *Science and Politics in the Ancient World*. If we take Lucretius as a metaphysician he appears in a much better light.

(1) The argument opens with the assertion that things do not arise out of nothing—" *Nil posse creari de nilo* "—(I, 155 *seq.*). This truth, if it is true, is a truth of reason and not an inductive generalization from experience. For experience *prima facie* bears witness to change rather than constancy. Lucretius argues that to deny this assertion is equivalent to asserting that anything may arise out of anything ; and that is manifestly false because there is some order in nature, not mere chaos. The appeal to experience is indirect and is quite general, not specific. We may grant his point that there are some orderly processes, therefore it is false that anything may produce anything. The step from the falsity of the proposition " anything can arise out of anything " to the truth of the proposition " nothing can arise out of nothing," in the sense that matter is uncreated and uncreatable, is however not known to logic. Lucretius next (I, 215 *seq.*) argues that matter is indestructible. The argument is similar and no better. This stage of the argument is hard to reconcile with the doctrines that the evidence of sense is to be preferred to that of reason (IV, 478-485). Still, his conclusion is that of most Greek thinkers ; but those who were not Epicureans were honest in their avowal of their metaphysical faith that reason is more trustworthy than sense. Strictly, Lucretius' assertion is an axiom that rests upon no argument save that creation and annihilation are inconceivable. This hardly amounts to more than that, since the notion of cause is that of constant relations between antecedent and consequent, *if* something were to be created it would have no antecedents, or *if* annihilated, no consequents. In either case no causal account could be given.

The scientific investigator must look for the most permanent elements he can find and rest his processes of measurement upon them, but he has no need to go on to assert that everything is really permanent and change cannot be anything but the shuffling of pre-existing parts. It would simplify his problems if it were so, but he has no empirical grounds for saying it is so.

After this first assertion comes one of Lucretius' best arguments (I, 265 *seq.*). He appeals to specific facts of

experience after the manner of science, but appeals also in terms of the metaphysical distinction between appearance and reality, in order to establish the point that there are things which are corporeal and real although invisible and intangible. For instance, we can smell and can feel heat and cold when nothing visible or tangible is transferred to produce the effect. We note evaporation and condensation occurring when no visible moisture passes out or in. We often observe considerable effects produced by the summation of very many small processes, no one of which appears to produce any effect at all. One drop of water falling on a stone makes no difference we can discover, but the dripping of years wears it away ; therefore even one drop must carry away something, but something so minute we cannot discern it in any way. Perhaps one should add that by recognising the corporeal nature of air, as distinct from empty space, Greek science had already recognised that a thing could be real yet intangible and invisible.

(2) The next step is the vital one. Granted that there are permanent real things and that they may be insensible because of their smallness, to show that there is empty space between them. Lucretius does not use the argument from the compressibility of gases because the facts were hardly realized by him or probably anybody else in his day. He relies entirely on the necessity of empty space for motion of any kind (I, 329 *seq.*). He ridicules the argument of the Stoics that a fish can swim through water, without there being any empty space in the water, by reason of the water flowing backwards as the fish moves forwards, so that what is displaced by the fish's head flows in behind his tail (I, 370 *seq.*). Provided you avoid analysing and visualizing the Stoic argument stands. It is just a matter of differential pressures. The swimming fish produces high pressure in front and low pressure behind. A fluid is by definition that which tends to flow from a region of high pressure to one of low. But if you analyze and visualize, then you can hardly avoid the atomist conclusion and have to admit that fluid motion implies some empty space between the fluid particles.

Lucretius sums up this section of the argument by saying (I, 418–482) that bodies must exist because our senses bear witness to them, that whatever acts or is actual is corporeal and that there is empty space which allows for motion. Anything else in the world is a property or accident of one of the two, body or void, and there is nothing “*quasi tertia natura*” (I, 430–433). For all this, Lucretius, like everybody else, resorts to a third factor when he is in difficulties ; or else, why does he speak of “*natura daedala rerum*” or invoke Venus, who stands for the principle of growth and increase in the organic world ? Lucretius also admits human free will.

(3) Primary substance must be indestructible (I, 483 *seq.*). Lucretius takes this to mean hard and resistant to shock, since interaction is by impact. Hence he concludes that primary substance encloses no empty space. Strictly and metaphysically speaking body and void are mutually exclusive. The familiar objects of experience therefore are not what they seem. They are all partly void, as well as composite. They all contain interstices, as can be inferred from their permeability to heat. (An excellent argument, if taken a little more subtly than was possible in Lucretius’ day.) What is commonly called destruction of bodies is not destruction at all, only separation of parts. The conclusion then follows, that sensible bodies are not what they seem but are really (according to metaphysical, not experienced, truth) composed of simple, indestructible units. The density and rigidity of sensible bodies depends on the close packing of these units. The units must be of finite size because the sum of an infinite number of infinitesimals is not finite. This is not a good argument. A better might have been that an infinitely divisible body cannot be distinguished from a plenum and cannot contain empty space. In fact, the finitude of the unit is presupposed in the whole discussion.

(4) The existence of atoms established, there remains the last and most important argument, that there must be different kinds of atoms with diverse and specific properties on which depend the diverse and specific properties of sensible bodies (I, 635 *seq.*). Lucretius does not make his point very clear. We can hardly blame him because it

depends upon establishing empirically the fact that there are definite, distinct and separable kinds of matter, each with its own specific properties. This, though suggested by Boyle, was not fully established before the late 18th century. But Lucretius' negative argument against the older cosmologists is clear enough. Experience does *prima facie* inform us of a diversity of things whose properties are more or less definite and distinct and not always interchangeable. Water is recognizable as such because of certain properties it always has, and air as air, because of certain other properties. The properties of the one are not those of the other and the two are mechanically separable. Therefore the atoms of which water and air are composed must have corresponding (not necessarily identical) specific properties. Those who claimed that everything is composed of water, or of air, or of the four "elements," earth, water, air and fire, were in effect denying specific properties and separable distinguishable kinds, as Anaxagoras seems to have realized. The Alchemist of later days did the same. On the other side, Archimedes, when he found that the king's crown had been adulterated by showing that its density was less than that of pure gold, had grasped the point about specific properties. Lucretius can be credited with a shrewd guess in seeing the connection between atomism and specific properties.

So far I have summarized the four stages of Lucretius' argument in his First Book. A good argument, but not put forward in the spirit of enquiry, and quite without considering that the opposed theory could be maintained just as consistently as his own. In the later Books, where the theory is developed and applied, the argument is not so good. Some of his lapses have been mentioned already. Besides these there is one difficulty which any form of atomic theory has to face, which ought to be considered. Lucretius says (II, 444) that hard dense bodies are composed of hooked atoms and liquids of smooth ones, forgetting that glass and metals can be melted and water can be frozen. What is worse, the idea of a simple indivisible unit with a hook on it is eccentric, to put it mildly. Nevertheless, we must recognize that Lucretius is struggling with a genuine problem.

Operation by impact means operation by repulsion ; but if there is repulsion there must also be attraction or everything would fall to pieces. The hooked atoms stand for some sort of recognition of attractive forces within the limits of atomic theory. They might be taken by exponents of the plenum as showing the defects of atomism.

In Lucretius' day no consequences were deduced from atomic theory which pointed explicitly to facts capable of observation by any means then available. Any facts known could be dealt with in terms of plenum theory. The important difference is that atoms appeal to imagination and atomic models can be constructed, whereas the plenum makes no such appeal and does not lend itself to models. Plenum theory can be developed mathematically, but only with the help of the mathematics of later ages. In the 17th and 18th centuries leading continental philosophers, such as Descartes, Spinoza and Leibniz, were upholders of the plenum theory or at least were opposed to atomism. English thinkers (except Hobbes) were atomists. Newton, though inclined to speculate in terms of atomic theory, and so far an atomist, considered it a " hypothesis " not required by " natural philosophy." His verdict sufficiently defines its status until the end of the 18th century. Nevertheless speculation in terms of atomic models was on the whole helpful as it tended towards definite and concrete thinking about physical processes. It opened up possibilities. The objection to speculation in atomic terms was the one pointed out by Newton in his early controversy over optics, that speculative theories about the supposed atomic or non-atomic nature of light had usurped the place of observation. That is the wrong kind of metaphysics.

It was, however, in Newton's time that the two lines of investigation which led finally to the scientific atomic theory were begun. The first was the study of the physical properties of gases, and Newton himself actually stated the basic principle of the modern kinetic theory of gases. The other line was the study of the specific properties of substances ; experimental chemistry. Boyle was very largely responsible for initiating both.

The notion that there are substances in the chemical

sense, definite kinds with definite invariable properties, was not arrived at easily. The teaching of the alchemists was directly contrary. You start, they said, with lead which has a dull whitish colour and if you are clever enough you give it a bright yellow colour, and then you have gold. Why not? We constantly see some properties of things being changed while others are not, and one kind transmuted to another. Men had long ago learnt how to get pure silver from crude metal obtained from what we should now call silver-lead ores; it must have looked like turning lead into silver. The alchemists had discovered reagents which produced startling (though economically unprofitable) transformations. So why not lead into gold?

In the long query added to the 2nd Edition of his *Opticks* (1718) Newton could still state, on Boyle's authority, that water, even after it has been redistilled several times, leaves an earthy residue on evaporation. This was taken to mean that some water has been transformed to earth. It was only the painstaking work of Lavoisier more than half a century later that corrected this error. Newton also said that mercury was not always liquid at ordinary temperatures, but might be solid. Yet Boyle had already enunciated the contrary principles which were finally to dispose of the notion of transmutation. Boyle's principles were not obvious and not easily established. He realised that the ancient theory of four elements, earth, water, air and fire, or the later theory in terms of salt, sulphur and mercury, was entirely arbitrary and unconnected with practice; namely, what the chemist does in his laboratory. What he does is to separate mechanically the different kinds of things, so that they can be put into different bottles and labelled; and then to ascertain their properties by combination with others and further separation. Nobody, Boyle said, has ever extracted earth, water, air or fire out of gold; nor yet salt, sulphur or mercury unless he first put them in. On the other hand, gold can be alloyed with other metals or dissolved up in acids, and then recovered again entirely unchanged. If there are such things as chemical elements, gold is a better candidate for the post than any of these others. Chemical theory should arise out of chemical practice and practice

be directed by theory. When Boyle's doctrine is fully developed it means that if any materials are found to be variable in their properties it is the chemist's business to separate out from them invariables—pure substances whose properties are constant (apart from regular variation with temperature and pressure). If any one specific property of a substance is to be altered it can be done only by altering others, namely by chemical combination or decomposition to form a new substance or substances. Substances are of two sorts ; elementary ones, which cannot be broken down into other substances, and those which can, compounds. Whatever is not an element or compound is a mixture. Boyle's theory is *a priori* in the sense of telling the chemist what kind of thing to look for and how, but not in attempting to tell him what must be found.

The chemist's task of separation might have proved too difficult. Everything might have been inextricably mixed with everything else, as plenum theory suggests. But the labours of the 18th century chemists who studied the metals and their compounds with oxygen, sulphur and acids showed it was possible in some cases. This was the death of alchemy and for the time being a nasty blow for the plenum theory.

With the development of quantitative methods a new conception arose, that of definite combining weights. Lavoisier took the conception for granted but others did not. If you stir up a larger quantity of salt with water not only will it dissolve quicker but more will dissolve than if you stir up a smaller quantity. This rule holds up to a maximum when the water is said to be saturated with salt. Up to the saturation maximum the water will dissolve any amount of salt, large or small. Now if solutions of salts in water are taken to be chemical compounds (why not ?), then there are instances where instead of combining weights being definite and fixed, they are indefinitely variable. There are contrary instances when they seem to be fixed, such as the oxides and sulphides of the metals. Berthollet in the opening years of the 19th century maintained that even these are not really contrary instances but that the composition of the compounds varies according to the quantities of oxygen or sulphur available for combination. Berthollet had chosen

his ground badly and Proust at the end of a long controversy was able to persuade him that in fact some metals form only one oxide and one sulphide of the same invariable composition, others form two, but again each is distinct, separable from the other, and of invariable composition. But Proust's victory was precarious, because plenty of other cases could be quoted that were *prima facie* in favour of Berthollet's view. To the question : "What is now our criterion by which we decide that zinc oxide is a chemical compound and a solution of common salt or oxygen in water is not?" the answer is in two words—Atomic Theory. This is where Dalton comes in.

It is not likely that, when Dalton made his great discovery between 1802 and 1804, he knew of the controversy between the French chemists, which indeed had only just begun. In any case he approached the subject from a different point of view. He was a physicist whose meteorological interests led him to consider not only the physical properties of gases but also some chemical questions closely related ; the composition of atmospheric air and the solubility of its constituents in water. Now the properties of gases, as already indicated, provide the natural approach to atomic theory. In fact the development of the kinetic theory of gases in the 19th century constituted, quite apart from chemistry, the culminating triumph of atomic theory after the classical pattern. Newton, though he could make no further use of it, had stated the fundamentals of the kinetic theory of gases (*Principia* II, Prop. 23). "If a fluid be composed of particles fleeing from each other and the density be as the compression [Boyle's Law], the centrifugal forces of the particles will be inversely proportional to the distances of their centres. Conversely, particles fleeing from each other with forces that are inversely proportional to the distance of their centres compose an elastic fluid whose density is as the compression." Dalton, however, did make use of the notion. To follow his argument, visualize the particles of such a compressible fluid and suppose that it is a pure elementary substance. It may be assumed that all the particles will be identical in all respects *including weight*. Next suppose chemical combination to take place between the particles of two such gases.

It is obvious that it can occur only by their joining up in pairs, one of each sort ; or in threes, one of one and two of the other ; or in fours, and so on. These proportions fix the proportions by *weight* in which the elements combine, exactly as the chemist determines them in his analyses. Hence we can deduce the three fundamental chemical laws, of constant, reciprocal and multiple proportions. Dalton having deduced these consequences, then examined the published data and carried out experiments of his own to confirm them.

As writers of the Positivist school have often turned the story upside down and alleged that Dalton arrived at the laws empirically from chemical analysis and then generalised them further into the atomic theory, it is necessary to insist on the point. Roscoe and Harden in their *New View of the Origin of Dalton's Theory* (1896) showed conclusively from Dalton's own statements that he assumed the atomic theory, then made deductions from it. Indeed it would have been impossible for him to do as Positivists alleged. Analytical methods were extremely crude and errors of over ten per cent. were the rule rather than the exception. In the absence of any criterion of accuracy or any stimulus to try to attain it, that was bound to be the case. Dalton supplied the criterion and the stimulus, so that the new generation of chemists, led by Berzelius and Gay Lussac, took up the task of accurate and systematic analysis. Chemical analysis is not too easy when you have been told how it ought to be done and what result you ought to get. It is extremely difficult when you have to discover both for yourself.

In Dalton's own mind and that of his contemporaries there was a good deal of confusion ; at least, of what we in retrospect can see as confusion because we have taken further steps which they had not taken. Dalton by linking up atomic theory with the notion of chemical combination had greatly transformed it but at the time he could not see how much nor could he really complete his theory. Taking existing analyses and assuming they were reasonably accurate (they were not) he could make out a tentative scheme of atomic weights. Quite rightly he worked out the simplest scheme he could. There is no point in intro-

ducing complications until they are found to be necessary. Hydrogen is obviously the substance with the least atomic weight and is therefore conveniently taken as 1. Then the lowest numbers that can be reasonably assigned to oxygen is 8, nitrogen 7, carbon 6, and so on (using modern data for ease in understanding). So far Dalton was on safe ground, but it might be necessary to multiply some of the figures. This scheme would make the formula for water HO and for ammonia N_2H_3 . It might be possible to produce cogent evidence against these formulae and in favour of H_2O and NH_3 which would mean taking $\text{O}=16$, $\text{N}=14$; further, in order to avoid gratuitous complications, $\text{C}=12$ and so on. The only thing we can blame Dalton for is that he did not appreciate the cogency of the evidence, but that was partly because of theoretical confusion and partly because there was at the time no criterion of the accuracy of analytical data. Gay Lussac put forward his Law of Combining Volumes from which it is argued that because two volumes of hydrogen combine with one of oxygen to form two volumes of steam, water should be H_2O . Gay Lussac's law is a deduction from the Kinetic Theory of Gases and has since been accepted, but Dalton rejected it because existing analyses seemed to show that the actual combining volumes deviated considerably from the supposed rule of whole numbers, in this and in other cases. The clarifying of theory and the improvement of practice necessarily went together; theory provided an aim, a criterion of accuracy and, in this case, a convenient notation for practice, but it was the nature of the practice that gave both form and content to the theory. Let me add two illustrations of this.

The naturally occurring mineral oils contain practically nothing but carbon and hydrogen, but contain them in varying proportions. The obvious and simple conclusion is that in this case the law of constant proportions does not hold or that the oil is a kind of solution of hydrogen in carbon. But chemists never for a moment lost their faith that in spite of appearances the oils really contained nothing but definite individual substances of constant composition. It was the atomic theory alone that provided this faith, and

this faith that sustained them in the incredibly difficult labour of sorting out these compounds.

The other example is this. Suppose a large class of students, elementary and unskilled, are given an impure salt of copper, told to purify it by recrystallization and estimate the copper, and to go on recrystallizing till they get constant results. Some will arrive at this stage quickly and obtain results reasonably close to the theoretical value ; others will take longer but attain the same goal in the end. A few may get results that are constant but not in accordance with theory. Some will never attain constancy at all. All these are equally genuine facts of experience, but some experience is dismissed as wrong, some accepted as right. The students who obtain the results that accord with theory, are said to be skilful or good practitioners, those that fail bad. Theory is the test of experience, apparently, not experience the test of theory. It will be said that theory is the result and summary of previous experience. Yes, but whose experience ? Again it has to be said, the experience of the experts not the experience of anybody, much less everybody. The theory does not lay down *a priori* what ought to be found, but it does provide an aim and a criterion as to when that aim is attained. That the results of the experts are in fact in agreement is ascertained in the light of theory, without which there is no definite criterion of agreement or disagreement. If people are doing different things they get different results, but when are they doing different things ? If the skilled practitioner uses approved methods, his skill and his methods having been tested on previous occasions, and still finds he gets varying results, then his material must be varying ; he is not handling a pure substance but a mixture. If a salt is pure it must have a determinate composition and the combining weights of the elements present must agree with those in other compounds. These are criteria derived from theory, but theory inseparable from practice and arising out of it. There is an *a priori* element in theory but also in practice. Not the false *a priori* which tries to set limits to experience beforehand, but one which makes experience possible by providing conditions for attaining it.

The chemical atomic theory is one corpuscular theory

among others. It asserts that chemical reactions at the temperatures and pressures used in the chemical laboratory take place between definite *quanta* of matter of different kinds, and it helps to specify the kinds. It goes on to identify the gas molecules of kinetic theory with complexes of definite small numbers of chemical *quanta* and it also makes use of the extension of gas theory to substances in solution. It does no more. It assumes nothing about anything happening under conditions outside the range of the chemist's technique. In particular, it says nothing about that Happy Hunting Ground of the physicist, electric discharges in high vacua. It does not need to assume that chemical atoms are ultimate or simple in any strict sense. Biological science has its own atoms or corpuscular units—living cells, genes, nerve impulses. Certain special technical procedures reveal these different units and for certain theoretical purposes they are taken as units, as entities which exist as a whole or not at all. But they are never supposed to be ultimate or simple.

Moreover most of the assumptions of chemical atomic theory are no more than approximations. No substance ever handled is absolutely pure. Specific properties are not absolutely specific. Atoms of the same element are not all of exactly the same weight ; and so on. In this respect atomic theory shares the fate of all scientific theories. They cover a limited range of facts as well as can be desired ; they become less accurate and less reliable near the limit of the range ; outside it they fail partially or entirely. This is inevitable if theory and practice are bound up together, because practice is determined by what the practitioner is trying to do and by the character of the material practised on. No technique deals with things in general for any purpose, except perhaps mathematical technique, which tells us nothing about anything in particular.

It has been assumed traditionally that the properties of the very smallest things, at least the mechanical and spatial properties, were the same as those of the larger, man-size things we see and handle. This assumption works very well down to the magnitude of the larger molecules, begins

to be shaky at the level of the atom and fails entirely at the level of the electron. The surprising thing is, not that the assumption failed to work, but that it succeeded at all and that anybody ever thought it would. It has been known for a long time from the Principle of Dynamic Similarity that the mechanical properties of small things differ from large ones ; *e.g.* the greyhound supports himself on thin bent legs and runs very fast, the elephant has to have thick straight ones and run slowly. It has been known for a long time from statistical studies that the properties of an aggregate of a very large number of units are not identical with those of the units ; *e.g.* the population of a town has a birth rate and death rate, but not the individuals who are born and die.

As a simplifying assumption to begin with, it was probably useful to take minute bodies as similar in properties to large ones. So far as they can be handled in similar ways they will tend to reveal similar properties. When it becomes necessary to devise different methods of handling, then different properties will manifest themselves. The result has been to show that, down to the order of magnitude of the chemical atom, atomic theory according to the classical model is satisfactory. Below that different notions are needed. The smallest entities of all retain none of the recognisable properties of sensible objects and for them the supposed incompatibility of atomic and plenum theory disappears.

By way of conclusion I would suggest that atomic theory, in becoming scientific, has in no way ceased to be metaphysical. It still appeals to the distinction between appearance and reality and still proposes to use reason to supplement and correct appearance. In becoming scientific, however, the theory has not remained unchanged. It has not been just a process of giving new content while leaving the form unchanged. The chemical notions that have been introduced from chemical practice have changed form as well as content.

Meeting of the Aristotelian Society at Bedford College, Regent's Park, London, on Sunday, April 15th, 1945, at 5.15 p.m.

V.—THE MYTH OF SENSE-DATA.

By WINSTON H. F. BARNES.

§1.

OUR knowledge of the physical world is subject to many doubts and uncertainties but we commonly see no reason to doubt certain facts. We all agree, when we are out of the study, that we sometimes see tables and chairs, hear bells and clocks, taste liquids, smell cheeses, and feel the woollen vests that we wear next to our skin in winter. To put the matter generally, we agree that we perceive physical objects, physical objects being such things as tables, chairs and cheeses, and perceiving being a generic word which comprehends the specific activities of seeing, hearing, tasting, smelling, and feeling. These activities are invariably directed upon an object or objects; and this fact distinguishes them from other activities of ours—if that be the right word—such as feeling pained or feeling tired, which go on entirely within ourselves. We take it for granted that by means of the former activities we become aware of the existence, and acquainted with the qualities, of physical objects, and we further regard the kind of acquaintance which we acquire in this way as a basis for the far reaching and systematic knowledge of the physical world as a whole, which is embodied in the natural sciences.

Let us call experiences such as seeing a table, hearing a bell, etc., perceptual experiences; and the statements which assert the existence of such experiences perceptual statements. Many philosophers have cast doubt upon the claims made by such perceptual statements. They have produced arguments to show that we never perceive physical objects, and that we are in fact subject to a constant delusion on this score. As these arguments are by no means easily

refuted and are such as any intelligent person interested in the matter will sooner or later come to think of, they are well worth considering. Moreover, certain modern philosophers claim to show by these arguments not only that we do not perceive physical objects but that what we do perceive is a different sort of thing altogether, which they call a sense-datum. They are obliged to invent a new term for it because no one had previously noticed that there were such things. This theory is obviously important because it not only claims to settle the doubts which we cannot help feeling when we reflect on our perceptual experience, but it makes the astonishing claim that we have all failed to notice a quite peculiar kind of entity, or at least have constantly made mistakes about its nature. I hope to show that the sense-datum theory is beset by internal difficulties ; that it is not necessitated by the doubts we have about our perceptual experience ; and finally that the doubts which are caused in us by a little reflection are allayed by further reflection.

The arguments which philosophers such as Professors Russell, Broad and Price use to demonstrate that we perceive not physical objects but sense-data, are many and various, and no good purpose would be served by stating them all, even if that were possible. Undoubtedly, however, these arguments do cause us to doubt whether we are acquainted with physical objects when we think we are ; and, these doubts demand to be resolved in one way or another. If there is such a thing as a problem of perception, it must consist in reviewing the doubts which arise in our minds in this way. I shall select for brief statement three typical arguments so as to make clear the difficulties which are thought to justify the negative conclusion that we do not perceive physical objects and the positive conclusion that we perceive sense-data. There are two *caveats* to be registered. First, in compressing the arguments into a small compass I cannot hope to do full justice to the arguments, many and various, used by the sense-datum philosophers. I must leave it to the reader to decide whether I represent their general line of argument correctly or not. More than

this I cannot hope to do ; nor do I think more is necessary. Secondly, I should not be in the least surprised to be told that I already have misrepresented some of these philosophers by stating as one of their contentions that we do not perceive physical objects. Some of them would maintain that in some peculiar, or Pickwickian sense, to use Professor Moore's term, we do perceive physical objects. However, as, on their view, we do not perceive physical objects in the sense in which we think we perceive them, and we do perceive sense-data in precisely this sense, the misrepresentation is purely verbal and should mislead no one.*

I now proceed to state the three arguments. They are all taken from visual experience, and they all pose in one way or another what we may call the " appearance-reality " problem of perception.

(1) A penny appears circular to an observer directly above it, but elliptical to an observer a few paces away. It cannot *be* both elliptical and circular at one and the same time. There is no good reason for supposing that the penny reveals its real shape to an observer in one position rather than to an observer in any other position. The elliptical appearance and the circular appearance cannot be identified with the penny or any parts of it, but they are entities of some kind. It is things of this sort which are called sense-data.

(2) The stick which looks straight in the air looks

*The sense in which, on the sensum theory, we perceive objects, is described as *direct perception* or *direct apprehension* by the exponents of the theory to distinguish it from the perception or apprehension of physical objects which the theory as sometimes expounded allows to be possible. ("The Philosophy of G. E. Moore," pp. 629, 640-643.) This distinction is usually drawn by those philosophers who accept the position taken up by the philosophy of analysis that there are many statements such as 'I see the table,' 'I hear the bell,' which are certainly true, although the analysis of them requires careful thought; and at the same time are convinced by arguments which claim to show that we cannot in fact see the table in the ordinary sense of the word see. I can see no really important difference, however, between the two statements: (1) I see only sense-data in the sense in which I have been accustomed to think I see physical objects, and my relation to the physical object is not that of seeing but that of R. (2) I see only sense-data in the sense in which I have been accustomed to think I see physical objects, but I do see physical objects in the sense that I have a relation R to them.

angularly bent when in water. There are good reasons for thinking that no such change of shape takes place in the stick. Yet there *is* something straight in the one case and something bent in the other, and there is no good reason for supposing either is less or more of an existent than the other. The straight-stick appearance and the bent-stick appearance are sense-data.

(3) There may seem to be things in a place when in fact there are no such things there, as illustrated by the mirages which appear in the desert and the highly coloured rodents which appear to habitual drunkards. Not unrelated to this type of experience is the one in which we see double. If an eyeball is pressed by the forefinger while one is looking at a candle flame, two flames are seen. Although it would be possible to say that one of the flames is the actual object and the other is something else, to be called a sense-datum, it seems even more evident here than in the previous instances that there is no good reason for distinguishing between the two in this way.

In all these cases there is a suggestion that what we see in certain cases cannot be a physical object or the surface of a physical object, but is some kind of non-physical entity. It is non-physical entities of this kind which are called sense-data. The argument goes even further by urging that, if in some cases we see non-material things, it is possible and indeed likely, that we do so in all cases. This plausible suggestion is accepted by certain sense-datum theorists such as Professor Broad and is extended to cover all forms of perceiving. With the acceptance of this suggestion we reach the basic position taken by one form of the sense-datum theory, viz., we perceive only sense-data, and consequently have no direct acquaintance through our senses with physical objects.

It is clear that, on this view, the term sense-datum has as part of its connotation, the not being a physical body*.

*"In the common usage, some characteristic which entailed 'not a physical reality' was put into the connotation of 'sense-datum'; 'sense-datum' was so used that it would be a contradiction to say of any object that it was *both a physical reality and also a 'sense-datum'.*" ("The Philosophy of C. E. Moore," p. 634.)

As everything I experience is a sense-datum, the sense-experience of a table, for example, differs not at all, in itself, from an hallucination or an illusion. These latter again seem to differ only in degree from the images we have while we are day dreaming, or those we have while dreaming in the proper sense, or again from the after-images, or as they are more properly called, the after-sensations which sometimes follow our visual sensations. All these appearances would be regarded by certain philosophers as in principle of the same kind. This position is paradoxical to common-sense which regards perceptual experience as giving first-hand acquaintance with physical objects, and hallucinations and illusions as failing precisely in this respect. The common-sense ground for the distinction however is removed by the sense-datum theorist, and if in fact he does believe in physical objects, he has to substitute a new ground of a far more subtle and elaborate nature. In some cases he may prefer to get along altogether without physical objects, and may even urge that if we once give up the common-sense ground of distinction as untenable there is no other ground for believing in them.* Such questions as these, however, are domestic problems of sense-datum theorists and need not detain us, as we are intent on coming to grips with the basis of the theory itself. It is important to note, however, that once the sense-datum theory is developed in the form stated above, it follows that, even if physical objects exist, they are never present in perceptual experience ; and it becomes an open question whether they have any existence at all.

§2.

I shall consider later whether the arguments for the existence of sense-data in the sense indicated are valid. First, however, I want to state three considerations regarding the sense-datum itself. The first is of a very general nature and calculated to make us wonder whether a theory

*As Dr. Luce does, in his "Immaterialism." (Annual Philosophical Lecture, British Academy, 1944.)

which departs so radically from common sense can be true ; the second points out what extraordinary existents sense-data would be if there were such things ; the third is directed to show that the kind of difficulty the theory was carefully framed to meet tends to break out anew within the theory.*

(1) The general consideration concerning the *sensum* theory is as follows : If the theory is true, then in all our perceptual experience *sensa* are interposed between us and the physical world, whereas it is one of our most strongly held beliefs that in perception we are face to face with the physical world. I do not wish to suggest that no attempt can be made to answer this obvious objection. The *sensum* theory can and does urge that in a Pickwickian sense of the term *perceive* we do perceive physical objects, i.e., we perceive *sensa* which are related in certain ways to physical objects. Nevertheless there is no doubt that, when presented with this type of explanation, we are apt to feel that we have been given a very inferior substitute in exchange for the direct acquaintance with physical objects which we have been called upon to surrender. We receive in no different spirit the other attempted rejoinder that physical objects *are* *sensa*, or more elegantly, are logical constructions out of *sensa*, and that whether we "talk" physical objects or *sensa* is a purely linguistic affair. I shall say nothing of this rejoinder now, as I shall have occasion to discuss it later when I come to examine Mr. Ayer's view that the sense-datum theory is not a theory at all, but merely a new and better way of speaking of what we all believe.

Not only do we feel that *sensa* are an inadequate substitute for the physical objects which we claim to be confronted with

*As the form of sense-datum theory now to be considered is that which has been most clearly worked out by Prof. Broad, I propose to substitute for the word *sense-datum* in this section the word *sensum* which Prof. Broad himself uses in its place. We shall see later that what Prof. Moore and others have to say about sense-data makes it advisable to have different words for the two theories, distinguished as follows : *sense-datum*, the immediate object in perception which may or may not be identical with a part of a physical object ; *sensum*, the immediate object in perception, taken to be non-physical. Prof. Price, whose views are very like those of Prof. Broad, speaks of sense-data, but would, if he had accepted this rule for the use of the two words, have spoken of *sensa*.

in perception, but they seem to be embarrassingly numerous. Every appearance, however evanescent and fleeting, can claim to be an existent. As ordinary men, we contrast the intermittent character of our perceptual experience, broken as it is by sleep, lack of attention and change of place, with the permanent or relatively permanent and continuing status of physical objects. The changing facets of our perceptual experience we distribute carefully, crediting some to the physical world and disowning others as apparent only. The *sensum* theory credits all alike to reality, since it considers each and every one to be an individual entity. It is from this beginning that the wilder excesses of realism took their origin, in which not only reality but mind-independence was credited lavishly to almost anything that could be named, until the world began to take on the appearance of a great museum in which a few of the contents were real operative beings but the vast majority were exhibits only, ready to be produced on the appropriate occasion, but possessed of no other ground of existence.

I am not inclined to over-estimate the effect that a general consideration of this kind can be expected to have, but it is not lightly to be dismissed. There are philosophers to whom a single departure from the norms of common sense acts only as a stimulus to further more exciting philosophical adventures in the realms of speculation, but I confess that, for my part, I regard such a departure rather as a danger signal, warning that it would be wise to consider whether the steps which have led to this departure are as secure as they appear to be.

It is one thing to assert of a theory, however, that it presents us with a large number of existents which seem unnecessary and which, if they existed, would make it difficult to justify our acquaintance with physical objects ; it is quite another to show that the existents are not merely unnecessary but are open to grave objections. This is the second point to which we must now turn.

(2) There are two reasons for considering *sensa* to be very objectionable existents.

(i) In the first place, unlike physical objects they do not always obey the Law of Excluded Middle. If I contemplate an object at some distance, it often happens that I am uncertain whether it is circular or polygonal. It is necessary for me to approach closer before I can determine the matter with certainty. On the *sensum* theory, the mode in which the object appeared to me at first is a *sensum*, and every *sensum* is what it appears to be. Now this *sensum* appears neither circular nor non-circular. Therefore it is neither circular nor non-circular. Let us be quite clear on this point. It is not that I do not know whether it is circular or non-circular, though in fact it must be one or the other. It really is neither one nor the other. This kind of experience is more common than one is perhaps inclined to believe at first. When an optician asks you to read those minute letters inscribed at the bottom of his chart, there comes a time when you are compelled to say "I am not sure whether it is an M or an N," because the shape you see is sufficiently indeterminate for you to think it may be either. Of course, some eminent philosophers have thought that reality did not obey the Law of Excluded Middle, but it would be surprising to find Professor Broad in their company.

It is tempting to urge that we *must* know the shape of the *sensum* because an artist can sit down and draw something which reproduces the shape. A little reflection, however, will show that what the artist does is to draw something which, having a certain definite shape, will appear at a certain distance to be as indeterminate in shape as the object itself appeared. In other words, what the artist does is the same in principle as what a joiner might do by building another object like the first one which would give rise to the same sort of appearance as the first one. So far as I can see, all so-called *sensa*, i.e., colours, sounds, smells, etc., are indeterminate in this way, though under favourable conditions the range of indeterminacy is so limited that it is, for practical purposes, not of any importance.

(ii) The second reason for considering sense-data to be objectionable existents, though closely connected with the former is less formidable ; but is worth mentioning because

it leads up to a number of very interesting considerations. It is a necessary consequence of the fact that a sense-datum is what it appears to be that there is no possibility of making further discoveries about its nature. It is always possible to get to know more and more about a particular existent, such as an apple or a squirrel, and, so far as we can tell, this process need never come to an end. There is no progress to be made in our knowledge of any particular *sensum*. This contention may seem to go too far in view of the revelations which philosophers claim to have about *sensa*. It can, however, be justified. Our knowledge of things is increased either by observation or by experiment. Experiment, as a means of gaining knowledge of *sensa*, is clearly ruled out, since it is obvious that any movement on my part or interference with the conditions will only cause one *sensum* to be replaced by another. It does, however, seem as though I might increase my knowledge of a particular *sensum* by observing it more closely than I had done. Rather, we must say, "by observing it more closely than I am doing," for clearly, my closer observation can only yield me more knowledge if it follows uninterruptedly upon my first. It will not do for me to come back at 5 p.m. to a closer study of the *sensum* which my table presented at 3 p.m. Can I gain more knowledge by continuing to observe it at 3 p.m.? I think we must say that I cannot. If we were to maintain that this was possible, and that something in the *sensum* previously unobserved might by observation be brought to light, we should need some criterion for making certain that it was the same *sensum* which we were observing at a later date as at an earlier date. *But no observation or experiment can yield a criterion.* The *sensum* theorists offer us little help on this point. The only thing is to fall back on the principle that a *sensum* is what it appears to be. If we interpret this as meaning it is all that it appears to be *and nothing more*,* then the possibility of learning anything about a *sensum* is cut away at once, for the very good reason that we know all there is to know about it by simply having it. It is, I think, a very odd fact,

*We shall see later that there are difficulties about other interpretations.

if true, that there are existents such that their being known at all entails their being completely known.

(3) I come now to the third consideration. The sensum theory was devised to overcome the difficulty that we sometimes seem to be directly aware of some property in an object even though this property is not really present and is incompatible with others which are present. Sensa really have those properties which objects only appear to have. The chief convenience of the theory in fact is that it provides a home for every quality, real or apparent, which is experienced, and it does so by attributing to every such quality the status of a particular existent. If sensa could appear to have properties which they do not really have, the sensum theory would be bankrupt. It seems to me quite impossible to prove that sensa can appear to have properties which they do not possess. Nevertheless, the attempt is so interesting and throws so much light on the theory that I propose to undertake it.

Prof. Broad states : " It follows from this theory that sensa cannot appear to have properties which they do not really have, though there is no reason why they should not have more properties than we do or can notice in them,"* ; again : " Sensa may be much more differentiated than we think them to be"† and " a sensum is at least all that it appears to be."‡ He also says : " Each sensum is a particular having those sensible qualities and that sensible form which it seems on careful inspection to have."§

Let us see why it is impossible to prove that a sensum can appear to be what it is not. Suppose that I am looking at a distant object and report : " I can see a circular pinkish patch." Looking more carefully I say later : " It is not pink, it is white with red spots." What are we to say if we hold the sensum theory ? There seem to be several possible answers. We may say : (i) The sensum appeared pink but it is really white with red spots, or (ii) the sensum under-

*" Scientific Thought," p. 244.

†*Ibid.*, p. 244.

‡*Ibid.*, p. 245.

§" Mind and Its Place in Nature," p. 189.

went a change, or (iii) there were two different *sensa*, or (iv) the *sensum* is white with red spots but I failed to differentiate it properly until I inspected it carefully. The *sensum* theorist will not choose (i), because he would then be faced with the appearance-reality problem breaking out again in *sensa* which were invoked especially to lay this spectre. He would also I think reject (ii), although I can think of no good reason why *sensa*, if they exist, should not change. As long as (iii) is open, the *sensum* theorist can avoid the appearance-reality problem breaking out in *sensa*. It is clear, however, that if (iii) is adopted it is quite misleading to say, as Prof. Broad does, that it *follows* from the *sensum* theory "that *sensa* cannot appear to have properties which they do not really have."* This proposition need not form part of the theory and if laid down, it is laid down quite arbitrarily in order to prevent the appearance-reality problem arising in *sensa*. To deal with the kind of instance in question, Prof. Broad gives the answer (iv) but it seems ill-advised, for the word *differentiation* comfortably conceals the fact that the *sensum* as a whole can only become more differentiated by particular spatial patches within the whole appearing different on a second occasion from how they appeared at first. It is clear that what Prof. Broad wishes to maintain is that a *sensum* may be more than it appears to be, provided the more is not inconsistent with anything it appears to be. A simple instance will reveal the difficulty in this contention. I am waiting for a No. 3 bus and, on first glancing at a stationary bus some distance away, I think I see a number 3 on its front. On more careful inspection, however, I see that it is a number 8. It might be urged that I first of all failed to see that part of the 8 which is necessary to transform a 3 into an 8. The 8 did not appear what it was not, but it appeared less than it was. There are two ways of answering this contention: One consists in pointing out that I can just as easily mistake a 3 for an 8, in which case I see more at first than is confirmed by more careful inspection. The other, and more adequate rejoinder is to point out that in either case there was an appearance

*"Scientific Thought," p. 244.

inconsistent with what careful inspection revealed. Suppose the 3 and 8 are white figures on a black background. Then in the one case something that at first seemed black, later seemed white, and in the other case, vice versa. Similarly, in the original example, if I see as pink a large number of red dots on a white background, then every red dot is appearing pink to me and so also is the interstitial white. The more that is here revealed on careful inspection does conflict with the first appearance.

There is one other point worth mentioning. Why should it be necessary to inspect a sensum carefully before one can become acquainted with it as it is? If I press one eyeball while looking at a bright light, I see queer long streaks of light running vertically through the centre of the light and varying according to the pressure on the eyeball. It is difficult to inspect anything carefully with one finger on your eyeball, but if you remove your finger, the vision disappears. Surely, it was a perfectly good sensum? Again, if looking through green glasses gives a new sensum, why not pressing your eyeball or looking out of the corner of your eye with deliberate carelessness?

The moral of this is that those who believe in *sensa* tell us so little about the laws of their existence that we are at liberty to make a variety of assumptions on quite fundamental points. For example, how do we determine the duration of a sensum? If I blink my eyes while looking at a red patch are there two *sensa* separated in time, or is there only one interrupted in its career? If a change occurs in my visual field has the sensum changed or been replaced by another? If the latter, is there any reason why, when no change is observed, a sensum should not be replaced by another exactly like it? It may be said that to answer these questions is not important. I am inclined to agree that it is not; but the only reason I can see for this is that, *sensa* being wholly fictitious entities, we can attribute to them what qualities we please.*

*This fact is at the bottom of Mr. Ayer's contention that the sensum theory is really only an alternative language, but we shall see later that there is more to it than this.

Let us consider in a more particular way the arbitrary character of the sensum theory. Prof. Broad allows that a sensum may move across one's visual field ; but he would not I think, allow that it can change in size or qualities. Take the simple case where I am watching a cinema screen on which is depicted a round red patch moving across a background of different colour. Here, according to Prof. Broad, is a single sensum moving across my visual field. Supposing the round red patch remains stationary but slowly contracts in size before finally disappearing. Here, presumably, is a succession of sensa. Supposing, now, the red patch moves across the screen and as it does so it diminishes in size, have we one or a succession of sensa ? The answer would have to be, I think : "A succession." There would seem, then, no reason for supposing that where the size of the moving patch is constant, there should not also be a succession of sensa. If this is so, sensa do not move, they merely rise up one after another in a certain spatial order. We could equally well allow, on the other hand, that sensa not only move but change in shape, size, colour, etc. In fact, if the essential characteristic of a sensum is that it is what it appears to be, then there is a very good case for taking this view, since there certainly *appear* to be changes in the colour and shape as well as the position of what we experience through our senses. What is worth remarking is that there is nothing which enables us to consider one alternative nearer the truth than the other. As long as this kind of question can be decided only arbitrarily, it is clear that there is no way of determining the number of sensa. So we find them to have another peculiar property for existents ; they are not numerable.

Let us consider further the notion of a sensum moving across a sense field. A sense field may appear as one single variegated sensum. If one part moves in relation to the rest, we can say (i) the whole sensum is changing, (ii) the parts of the sensum are re-arranging their relative positions, or, what Prof. Broad says, (iii) a sensum is moving across the sense field. There seems to be no good reason for adopting one explanation rather than another. Similarly, if I have

a visual field, half red and half blue, I can at pleasure treat this as one sensum or as two. It is only by reference to the concrete individual reality of physical objects that I can number the appearances, distinguishing the appearance my table presents from that which my chair or my pencil presents. From a purely sensationalist point of view I am not faced with a number of sensa but with a changing variegated field of colour or, in the Kantian words, a manifold.

Before turning to consider the validity of the reasoning which is used to prove the existence of sensa, there is one other point which merits attention. One of the most serious arguments against the sensum theory is that, if it is true, it is extremely difficult to explain how from knowledge of our sensa we could come to knowledge of material things ; and yet, according to Prof. Broad, "all that I ever come to know about physical objects and their qualities seems to be based upon the qualities of the sensa that I become aware of in sense-perception."* But an even greater difficulty faces us, viz., that of being assured that material things exist at all, i.e., relatively permanent things with certain qualities and interacting with one another. Prof. Broad says : " . . . there is nothing in my sensa to force me logically to the conclusion that there must be something beyond them, having the constitutive properties of physical objects. The belief that our sensa are appearances of something more permanent and complex than themselves seems to be primitive, and to arise inevitably in us with the sensing of the sensa. It is not reached by inference, and could not logically be justified by inference. On the other hand, there is no possibility of either refuting it logically, or of getting rid of it, or—so far as I can see—of co-ordinating the facts without it."† Prof. Luce thinks otherwise. In rejecting the existence of physical objects over and above sensa he says : "To accept both the sense-datum *and* matter is to turn the one world into two."‡

*"Scientific Thought," p. 241.

†"Scientific Thought," p. 268.

‡"Immaterialism" (Annual Philosophical Lecture, British Academy, 1944), p. 6.

If I believed in *sensa* $\bar{i}$ should be found on the side of Dr. Luce, for the difficulties of distinguishing between a primitive belief and a primitive delusion seem to me insuperable.

§3.

So far we have been considering the difficulties that arise from holding that *sensa* form a class of existents totally different from physical objects. Though the difficulties are perhaps not sufficiently serious to destroy the theory, they seem to me quite serious enough to make it desirable to look carefully into the considerations put forward for inducing belief in such entities.

These considerations seem to me to reduce to one fundamental argument, and this argument seems to me to be false, though plausible. If I am right, then the reason for believing in *sensa* goes.

I quoted earlier three typical arguments for the existence of *sensa*. I now wish to examine carefully a single argument which embodies the principle of these and other similar arguments. No one will deny, I think, that a situation may exist in which the following three propositions are true :

- (i) I see the rose.
- (ii) The rose appears pink to me.
- (iii) The rose is red.

The belief in *sensa* is reached by arguing, not unplausibly, that since what I am seeing appears pink, there exists something which *is* pink ; and since the rose is red, not pink, it cannot be the rose which is pink ; therefore what I am seeing is something other than the rose. Whereupon the term *sensum* is invented and given as a name to this existent and others like it. And so we reach the conclusion :

- (iv) I see a pink *sensum*.

The argument is fallacious. *That something appears pink to me is not a valid reason for concluding either that that thing is pink or that there is some other thing which is pink.* From the fact that a thing *looks* pink I can sometimes with the help of certain other propositions infer that it *is* pink or that it *is* red ;

I may also, with the help of certain other propositions, be able to infer that something in some other place is pink, e.g., the electric light bulb which is illuminating the rose. But I cannot infer, as is proposed, *merely from the three facts that I am seeing something, that it looks pink and that it is red, that there is a pink something where the thing appears pink to me.*

This, when we examine it, is the foundation stone on which the great edifice of the sensum theory has been raised. Is it surprising that the upper storeys present doubts and perplexities? But there is worse to come. Not only is the argument fallacious but the conclusion contradicts one of the premises, viz., (i) I see a rose. It does so because, in order that the conclusion should seem at all plausible, it has been assumed that, if I were to see a rose which actually possessed a red colour, I should see it as red, i.e., it would necessarily appear red to me. This again is an assumption in contradiction with propositions (ii) and (iii) taken together. As soon as this self-induced contradiction is discovered by the sensum theorists, repair work is put in hand on one or other of alternative lines : (a) It is accepted that I do not see the rose, and an account is given of the relation in which I *do* stand to the rose and which has been mistaken for seeing. A little reflection, of course, soon convinces those who go this way that, if this is true, it is not only roses that are born to blush unseen, but the whole world of material things. In this way *sensa* become an impenetrable barrier barring for ever our acquaintance through the senses with the world of material things. This is strong meat for any but really metaphysical natures, and fortunately for the sensum theory there is another way of making the necessary repairs. (b) The alternative procedure is something like this : It is certain that I do see the rose. I have convinced myself, however, by argument that one thing I undoubtedly see, in a plain unvarnished use of the word *see*, is a pink rose-figured sensum. Hence the sense in which I see the rose must be different, i.e., "seeing" is systematically ambiguous and what exactly is meant by seeing the rose needs to be elucidated. Seeing

a rose and seeing a pink rose-figured sensum are then distinguished as quite different ways of seeing and it is convenient to refer to seeing a sensum as "directly seeing," and seeing a rose as "seeing."* The analysis of seeing the rose can then be made in terms of directly seeing a certain sort of sensum and at the same time having perceptual assurance that . . . etc., the complete analysis varying from one philosopher to another.†

There is another way in which an attempt may be made to justify the conclusion of the argument we have condemned as fallacious. I have argued that from the fact that something which is red appears pink, it does not follow that a pink sensum exists. It may be said that the existence of a pink sensum, while not following from the premises, is justified by a direct appeal to our sense experience. "I see it, therefore it is." The argument can be stated as follows : "I certainly see a pink something and to say that there is nothing pink is to say that I have no reason for believing in what I see now ; and if I cannot believe in what I see now, how can I believe in what I see on any occasion, or any one else in what he sees on any occasion ? If you deny the existence of this pink patch, you deny the existence altogether of the world revealed by the senses." The answer to this objection is simple, if we reflect, viz., "You never can believe in what you see on any occasion, it always may mislead you as to what the thing is. If you wish to state only that something appears to be so and so, this can safely be done. But this is not a statement about something made on the basis of a piece of evidence, it is a statement of the piece of evidence itself, which you already have before you without

*Prof. Moore makes this use of the two terms. It is worth pointing out that in ordinary language we should be ready to say that we were directly seeing the rose ; in contrast, for example to seeing it as reflected in a mirror or seeing it through a microscope, where the indirectness would consist, no doubt, to our minds, in the interposition of a further medium between our eyes and the object in addition to the usual light and air. There is still an air of paradox, consequently, about the way in which the words seeing and directly seeing are used by sensum theorists.

†Philosophers tend to adopt the second alternative because it enables them to eat their cake and have it. They continue on this matter to speak with the vulgar and think with the learned, following in this respect the good Bishop of Clogher, the inventor of philosophical analysis.

clothing it in words." Modes of appearance are clues to the nature of what exists, not existents. I submit that it is improper to ask whether the pink mode of appearing, which is how the rose appears to me, exists. You may ask whether the rose exists and whether it is red or pink ; and in answering this question account must be taken of how it appears under different conditions and to different people. Although modes of appearance are not existents, they are the material and the only material on which thinking can operate to discover the nature of existing things ; and it is an epistemological ideal that if we were to discover completely the nature of existing things, there would be nothing left in the modes of appearance which would not entirely harmonise with our system of knowledge and find its explanation there.

§4.

On Prof. Broad's theory, *sensa* are entities which cannot be identified with material things or the surfaces or other parts of material things. The notion of *sensum* is necessary in that theory to solve the appearance-reality problem consisting in the fact that a penny, though round, may appear elliptical. The solution is "to change the subject." "What is round is the penny, what is elliptical is the *sensum*."* Having proceeded in this way, it would have been folly to get into a position in which a *sensum* itself might be said to appear to have a quality which in fact it did not have and thus be confronted again with the same problem. Mr. Ayer points this out.†

If we examine the way in which Prof. Moore and his disciples use the word *sense-datum* we shall see (i) that they attach a quite different meaning to the word *sense-datum* from that given to it by philosophers who use it in the way Prof. Broad uses *sensum* ; (ii) that the refutation in the previous section does not apply to them ; and (iii) that there is no reason, in the way they use the term, for finding any

*"Scientific Thought," p. 245.

†"Foundations of Empirical Knowledge," p. 69.

difficulty in the assertion that a sense-datum may appear to have qualities which it does not possess.

Let us consider the very careful account given by Prof. Moore of what a sense-datum is : " In order to point out to the reader what sort of things I mean by sense-data, I need only ask him to look at his own right hand. If he does this he will be able to pick out something (and unless he is seeing double, only one thing) with regard to which he will see that it is, at first sight, a natural view to take, that that thing is identical, not indeed with his whole right hand, but with that part of its surface which he is actually seeing, but will also (on a little reflection) be able to see that it is doubtful whether it can be identical with the part of the surface of his hand in question. Things *of the sort* (in a certain respect) of which this thing is, which he sees in looking at his hand, and with regard to which he can understand how some philosophers should have supposed it to be part of the surface of his hand which he is seeing, while others have supposed that it can't be, are what I mean by sense-data. I therefore define the term in such a way that it is an open question whether the sense-datum which I now see in looking at my hand and which is a sense-datum of my hand, is or is not identical with that part of its surface which I am now actually seeing."*

This is a much quoted passage and has provoked a great deal of criticism. I wish only to make one point on it. After indicating to what we are to direct our attention Prof. Moore explains that this object of our attention, thought by some to be a part of the surface of his hand, by others not to be so, is a specimen of what he means by a sense-datum. On this definition, of course, I believe in sense-data, and so does anyone who believes that things have surfaces ; and that parts of those surfaces on certain occasions appear to us. For on this statement of the theory of sense-data, the man who maintains that we see things themselves and the man who maintains that we do not see the things themselves but only some other entities which are

*"The Defence of Common Sense," in *Contemporary British Philosophy*, Second Series, p. 217.

in some way related to the things, both believe in sense-data. Instead of distinguishing between philosophers who believe in sense-data and philosophers who do not, we should have to distinguish between those who believe that sense-datum is just another word for a visible part of a surface, those who believe that the sense-datum, though it looks like the surface and is easily mistaken for it, is quite a different sort of thing, and those who, like Prof. Moore, are frankly puzzled as to which to think. This is very awkward ; and is made more awkward by the fact that it means insisting that great numbers of philosophers, including myself, believe in sense-data, when for the purpose of distinguishing our views from those of Dr. Broad and similar views we are compelled to assert that we do not believe in sense-data.* If it is said that the term is neutral, I think the answer must be that Prof. Moore tries to use it in a neutral way but does not completely succeed. An example of the un-neutral character of the term as used by Prof. Moore is afforded by the discussion of sense-datum in "Some Judgements of Perception." He is discussing the judgement "This is an inkstand," and says : "... sense-data are the sort of things *about* which such judgements as these always seem to be made—the sort of things which seem to be the real or ultimate subjects of all such judgements."† He goes on to say a little later : "If there be a thing which is this inkstand at all, it is certainly *only* known to me as *the* thing which stands in a certain relation to this sense-datum."‡ If this is meant merely to convey that the whole surface is never visible at one moment, it is obviously true. If it is meant to convey that the whole inkstand is in no way presented in perception, it seems to me erroneous, for even when I am looking at the front of it I have some kind of awareness of the back of it. Further, by

*As has already been pointed out, Prof. Broad uses the term "sensus" not sense-datum for his peculiar entities. So far as I can see he uses the words "sensible appearance" and not "sense-datum" as a neutral word when required. If a neutral word is necessary this is certainly the nearest approach ; but it seems to fall short of being really neutral, so much so that it suggests the clue to what, in my opinion, is the correct theory of perception

†"Philosophical Studies," pp. 231-2.

‡"Philosophical Studies," p. 234.

walking around it I can have several different views of it, and it does not seem to me to be any one of these which is the subject of my judgement.

The subject of my judgement seems to me not to be a sense-datum, even taken as a part of the surface, but the whole inkstand, which, though not perceived in its entirety, is presented as a whole that is more than my perception reports it to be.

In replying to his critics Prof. Moore attempted to make his position clearer by the following statement: "I think I have always used, and intended to use, 'sense-datum' in such a sense that the mere fact that an object is *directly apprehended* is a *sufficient* condition for saying that it is a sense-datum."* This statement makes clear that, as Prof. Moore uses the term *sense-datum*, it does not denote a special kind of existent but a relation which, so far as we can tell, any kind of existent might have to a perceiving mind. Whether the relation of direct apprehension is consistent with the object directly apprehended appearing to be other than it is, as Prof. Moore on other occasions holds to be possible, I cannot say but I do not think the possibility can be ruled out. It is important for the following reason: The term *sense-datum*, though intended to be neutral,† is in fact very plainly marked with the scars of combat. As a technical term, it is the index of a philosophy eager to assert that in sense experience there is an object which is given. It is an attempt both to stop the rot of Cartesian doubt and to meet the idealist contention that all perception involves inference, with its corollary that if we seek a datum in sub-perceptual sensation, we find a state where the distinction between the ego and its object vanishes. Now, if the significance of the *datum* in the term were merely to insist that in sense-experience things *appear* to us to be possessed of certain qualities, then the term would be genuinely neutral, but neither Descartes nor the Idealists would have

*"The Philosophy of C. E. Moore," p. 649.

†H. H. Price, "Perception," p. 19. "... the term *sense-datum* is meant to be a neutral term. The use of it does not imply the acceptance of any particular theory."

been answered. If, on the other hand, the *datum* signifies that in sense experience I am immediately informed of the existence of certain things and of the characteristics they possess, without any possibility of being mistaken, then Descartes and the Idealists are answered, but the term is not neutral and, if our argument is correct, the implied theory is wrong.

§5.

Mr Ayer's view* that the theory of sense-data is not a theory at all but simply an alternative language for speaking about such situations such as "I am perceiving a brown carpet which looks yellow to me" or "I am seeing rats which are not really there" need not detain us long. It is in sharp contrast to the use of the term sense-datum by Prof. Broad and those who follow him. The great merit of that use, we are told, is that the term sense-datum "names an element not hitherto named."† According to Mr. Ayer we can name everything necessary by the use of ordinary language as in the sentences quoted above. The advantage of the sense-datum language resides, as he tells us, in the fact that "it makes it possible for us to say that something real is being experienced even in cases where our perceptions are delusive."‡ This is puzzling. The sense-datum language would be a most misleading translation of our ordinary language if it resulted in our saying that the drunkard's pink rats were real, as this is precisely what the ordinary way of stating the matter denies. If what it states is that there really do appear to the drunkard to be pink rats, then it states the matter no better than ordinary language. In view of the doubt as to which, if either, of these two things it is supposed to assist us in saying, it seems to be decidedly inferior to ordinary language.

It is worth pointing out that, if you are inventing or using

*"The Foundations of Empirical Knowledge," Ch. II.

†Helen M. Smith: "Is there a problem about sense data?" *Ar. Soc. Supp.* vol. XV (1936) p. 84.

‡A. J. Ayer: "Foundations of Empirical Knowledge," p. 69.

a technical language to speak about facts for which provision is made in the ordinary language, you are apt to be seriously misled by it unless you guide its usage carefully by constant checking with ordinary forms of expression. So far from making one's task easier, it makes it far more difficult. For that reason, in suggesting briefly an alternative to the sense-datum theory, I shall use ordinary language though, if I were more capable, I have no doubt that I could state what I have to say using the word sense-datum suitably defined.

§6.

I now propose to state briefly the lines of an alternative account to the *sensum* theory. The account is quite simple and is implicit in the foregoing discussion. I can claim no great originality for it as it is substantially the theory put forward by Prof. Dawes Hicks* and called by Prof. Broad the Multiple Relation Theory of Appearance. I can claim only that I arrived at it by a somewhat different line of thought and for that reason my statement of it may have some interest. I propose to call it simply the theory of appearing. I hope to show that it is the theory implicit in common sense and that it can be defended against the more obvious objections.

We saw that the *sensum* theory was led into difficulties by concluding from the propositions (i) I see the rose, (ii) The rose appears pink to me, and (iii) The rose is red, to a proposition (iv) I see a pink *sensum*. To attain consistency it was necessary to distinguish between the meaning which the word *see* has in proposition (i) and that which it has in proposition (iv). It is obvious, however, when we reflect, that propositions such as (i) must be incomplete versions of propositions such as (ii), e.g., "I see the rose as pink" is the expanded form of the proposition (i), which says the same thing as proposition (ii), but begins with me and proceeds to the rose, instead of beginning with the rose and

*In his "Critical Realism."

proceeding to me. It is evident, further, if this is so, that *see* must have the same sense but in the reverse direction, as *appears*.

The account I put forward, then, is that objects themselves appear to us in sense-perception ; that they in general appear in sense-perception to have those qualities which they in fact have ; that where they appear to have qualities which they do not in fact have, these instances are more properly regarded as their failing in differing degrees to appear to have the properties they do have, such failure being accounted for by the conditions under which they are perceived. We must be quite bold at this point and admit at once that on this account of the matter a thing can possess a certain quality and at the same time appear to some one to possess another quality, which it could not actually possess in conjunction with the former quality. Let us be quite clear about what we are saying. When I see a circular penny as elliptical I am seeing the circular surface of the penny, not some elliptical substitute. This circular surface, it is true, appears elliptical to me, but that fact has no tendency to show that I am not directly aware of the circular surface. Aeneas was none the less in the presence of his mother Venus though she concealed from him the full glory of her godhead.

It is clear that, on this theory, perception has a much closer resemblance to thinking than would be allowed by the sensum theorists. For (i) it may have a content more or less false to the real, as thought may ; and (ii) this content does not exist independent of the act of perceiving any more than the content of a false proposition.* The chief objection to this contention is stated by Prof. Broad as follows : " It is very hard to understand how we could seem to ourselves to *see* the property of bentness exhibited in a concrete instance, if in fact *nothing* was present to our minds that possessed that property."† I can see no great difficulty in

*It is a salutary reflection in this connection that the spiritual home of the sensum at one time opened its gates wide to an even more peculiar entity, the proposition.

†"Scientific Thought," p. 241.

this, and we have seen how the attempt to escape from the imagined difficulty leads to difficulties. Fourteen years later Prof. Broad himself was not so sure for he says : " Now one may admit that a certain particular might seem to have a characteristic which differs from and is incompatible with the characteristic which it does have. But I find it almost incredible that one particular extended patch should seem to be two particular extended patches at a distance apart from each other."* Prof. Price finds the same difficulty, for he says : " It is not really sense to say ' To me the candle appears double. . . ' doubler' is not really a predicate at all."†

Seven years have passed since Prof. Broad wrote the latter of his two quoted statements so it may be that he now finds the assertion more credible. I certainly find nothing incredible in it. No doubt it is impossible for one candle to *be* two candles but there seems no reason why it should not appear to be any number of things. Finally, hallucinations and delusions need present no insuperable difficulties. There appeared to Lady Macbeth to be a dagger but there was no dagger in fact. Something appeared to be a dagger, and there are certainly problems concerning exactly what it is in such circumstances appears to be possessed of qualities which it does not possess. It is easy of course to object that an illusory dagger is not just nothing. The answer is neither " Yes, it is " nor " No, it isn't," but " An illusory dagger is a misleading expression if used to describe an element in the situation." It is misleading also in some degree to say that there exists " a dagger-like appearance," though we need not be misled by such a use of the word *appearance* if we are careful. Strictly speaking, however, there are no such things as appearances. To suppose that there are would be like supposing that because Mr. X put in an appearance, there must have been something over and above Mr. X which he was kind enough to put in. " Mr. X appeared " : that

*" Mind and its Place in Nature," p. 188.

†" Perception," pp. 62-3.

is the proper mode of expression if we are to avoid difficulties.*

An existent must be determinate and we saw that what are alleged to be existents and called sense-data could not meet this demand. To give rise to similar difficulties by speaking of appearances, thereby seeming to condone treating the modes in which things appear as existents, would be most inappropriate. That a thing, though wholly determinate, should fail to reveal its full determinate character to a single *coup d'oeil* is surely to be expected and our theory derives support from the fact that objects do not always appear in their fully determinate nature.

There is another point about our account of the matter. It allows that it is *possible* for certain people at certain times to become acquainted through perception with things as they are, not merely as they appear to be. This can be seen best as follows. The word *sense-datum* was substituted for the word *appearance* to emphasise that there is an indubitable element in sense experience, in contrast with the use of the term *appearance* by philosophers who denied the existence of any such given, and who used the contrast between appearance and reality to grind a metaphysical axe of their own. But, as was pointed out by Prof. Moore, the term was often used with the connotation "not a physical reality." If this connotation is accepted, it follows that, however extensive our acquaintance with sense-data, we are no whit nearer to becoming acquainted with physical objects, and it is even difficult to see how we can know *about* these latter. This is the "great barrier" objection to the theory as held by Prof. Broad and his followers. Even for those who avoid putting into the term *sense-datum* this unwarrantable connotation the term is apt to give rise to unnecessary difficulties. For example, Mr. Wisdom,

*Cf. the judicious remark of Prof. Dawes Hicks: "When, in ordinary language, we speak of the objective constituent of a perceptual situation as being the 'appearance of' a physical object we mean not that it is the appearance which appears but that it is the physical object which appears." ("Critical Realism," p. 55). Even so, it is better to avoid the noun altogether, or at least always to test out the validity of its use by mentally translating into the verb.

more careful than most philosophers not to be misled by the term, writes : " I should agree that it is unplausible to say that, although when I see a thing in bad light my corresponding sense-datum is not identical with the observed surface of the thing, nevertheless, when the light changes, the corresponding sense-datum which I then obtain is identical with the observed surface, I cannot say why I find this unplausible, but I do. I find such a discontinuity, such a popping in and out of the material world on so slight a provocation, most objectionable."* If we are content to talk in terms of appearance or, better still, of things appearing, we shall not have pseudo-problems of this kind. We need have no heart-burning about the following statement : " Although when I see a thing in bad light the surface does not appear to me in every respect as it really is, nevertheless, when the light is adequate, it does." The reason we are now talking better sense is that the language of appearance permits us to maintain (a) that a thing can not only appear what it is not, but what it is : (b) that a thing's appearing what it is not is best understood as a deviation from its appearing what it is. A terminology which purports to be neutral and yet makes these propositions sound absurd has prejudged the issue in a most unfortunate manner.†

On the theory outlined it is easy to explain how we can come to know about material objects for in all our perception we are perceiving material objects even though we are not always completely successful in perceiving them exactly as they are. On the sensum theory, as we have seen, it is difficult to explain why knowledge of *sensa* should contribute towards knowledge of material things ; how we could ever have been led to the belief in material things ; and, still less, how we could justify the belief.

Finally, the account of the matter I have given is, I think, remarkably close to common sense. As Prof. Broad claims

*" Problems of Mind and Matter," p. 156.

†In fairness to Mr. Wisdom it must be pointed out that immediately after making the statement quoted, he goes on to say something which, if I understand it rightly, is very like what I have said except that (a) he calls that which appears a sense-datum and (b) identifies it with an object's surface.

that this type of theory departs as widely from common sense as the sensum theory this claim needs to be defended. He argues that, as commonly used, a statement such as "I see a table" involves the unexpressed theory that there is a situation involving two constituents, myself and the table, related by a relation of seeing, a relation which proceeds from me to the table. This theory, ascribed to common sense, Prof. Broad calls naïve realism.* Now it is only plausible to maintain that this theory is held by the ordinary man if carefully selected perceptual statements concerning objects at close range are considered. If we regard the whole range of perceptual situations the common sense belief is quite different. This belief involves that in perceptual situations objects reveal more or less of their nature to us ; and common sense would find no difficulty in admitting that there are cases where very little of the nature of the object of perception is revealed. For example, statements of the following type are a commonplace : "I can just see something, but I cannot make out what it is," "I think I can see something there but I cannot be sure," "It looks like a house, but it may be just an outcrop of rock." Instances could be multiplied indefinitely. Common sense would not scruple to admit that objects do not always have the qualities which they seem to have when seen, heard, tasted, touched or smelt. It accepts without flinching that the hills which look purple in the distance are really green. It is indeed a platitude enshrined in proverbial literature that "things are seldom what they seem."

I draw attention to these elementary facts, in the first place, to point out that the only naïveté about naïve realism is that philosophers should have thought the ordinary man believed it. More important, however, is that these facts show the common sense view not to involve belief in a simple two-termed relation between me and the things I perceive, in which no possibility of illusion can arise, but a

*"Naïve Realism . . . is the explicit formulation of the belief which forms an essential part of the perceptual situation as such." "The Mind and Its Place in Nature," p. 243.

relation in which there is the possibility of the object's nature being revealed to a greater or less degree. It is true, of course, that the plain man no less than the philosopher sometimes puts as the object of *see* not the material thing but the *how it appears* as when, looking into the distance, one says "I can see a purple haze ; it may be mountains or cloud." No violence is done to his language if it is re-written "I see something as purple and hazy " or "There is something which appears purple and hazy." It is the lack of sufficient information to establish the nature of the object appearing which leads to the varying form of statement.

In concluding, I do not wish to suggest that no problems beset the theory of appearing. For example the two cases of a thing's appearing double and of something appearing to be where there is no such thing, present the problem : Is the apparent expanse in these cases the actual surface of any object? If so, of what object? I must, however, defer the inquiry into this and other problems to a future occasion, when I can consider the affinities of this theory with the different but closely related theory of multiple inherence and at the same time discuss some of the points in Prof. Dawes Hicks' exposition with which I am not perfectly satisfied. Here I have only been able to indicate the possibility of such an account as an appendix to my main task which has been to criticise those theories which make the notion of sense-datum fundamental in their explanations of perception.

Meeting of the Aristotelian Society at Bedford College, Regent's Park, London, N.W., on Monday, June 11th, 1945, at 8 p.m.

VI.—THE RELATION BETWEEN MIND AND BODY.

By C. H. WHITELEY.

IF one examines a discussion of the problem of mind and matter, or mind and body, in the form in which it is most commonly stated, there seem to be such formidable objections to all the alternative accounts of the relation between them that one cannot help suspecting something seriously amiss with the whole approach to the problem, and the manner in which it is stated. I believe that this is the case, and in this paper I shall try to show that there is more than one problem involved, that the distinction between "mind" and "body" is not one distinction but several, and that corresponding to the different senses in which "mind" and "body" are contrasted, and especially to the different senses in which the terms "body" and "matter" are used, there are different answers to be given to questions about the relation between them.

In the first place, there is the distinction between sense-data and the subjects who are aware of them. In the totality of my own experience the sights, sounds, etc., which I attend to are distinguishable from me, the subject of experience, who attend to them, examine, discriminate, compare and respond to them. "Mind" in this context is especially the contemplator, the transcendental apperipient standing apart from the panorama of presentations with their variety of qualities which confront it and give its experience the particular character which it has. These sensory qualities are not attributes of me *qua* subject. And so there is a contrast between the objects of experience which possess sensory qualities, which can be red and round and so forth and the subject of experience which

cannot. This distinction between subject and object holds as well for the sight of my own hand and the sound of my own voice as for any other sense-data in my experience ; these sights and sounds are not me, but objects to me, and as sense-objects they are no more me or parts of me than the sight of the wallpaper and the sound of the typewriter. So I, a "mind," have to be distinguished from the set of sensory appearances which are appearances of my body, which from one point of view *are* my body, since it is in terms of these appearances that my body is described. I am entitled to call them appearances of "*my* body," partly because some members of this "family of sense-data" are always obtainable by me, but chiefly because they change in correlation with my own experiences and actions in a way in which other families of sense-data do not, because I can exercise over their variations a peculiarly direct control : *i.e.*, the special connexion between me as subject and agent and the sensory appearances of my body (as against other sensory appearances) is essentially a causal connexion. Similarly in the case of another person (let's call him James), there are sets of sense-data constituting the appearances to me (and I presume other sets of sense-data constituting the appearances to James himself and to other observers) of his body. But these sense-data are not James, the experiencing mind. That mind or personality I suppose to be distinct from the sense-data and to have to them a causal relation analogous to the relation between me (the experient and agent) and the sense-data of my own body. In virtue of the character of these sense-data I may describe James as red and round—or, shall we say, fresh-coloured and podgy. But these characters belong to sense-data and not to James, the mind or person. These families of sense-data might be called the "sensible bodies" of me and James. And the first contrast I am dealing with is a contrast between this "sensible body" which possesses sensible qualities and the mind or subject which observes the sensible qualities but is not qualified by them. Out of this contrast some philosophers, thinking of the soul as

essentially a knower, have extracted the notion of the pure Ego, detached, qualityless, indescribable, and changeless because it possesses no characters which could change. Many others, less extreme, thinking of "body" as that which possesses sensible qualities, and finding that the subject of experience cannot be described in terms of the sensible qualities of which he is aware, have concluded that the soul must be immaterial.

But if James as a mind or soul has to be distinguished from any set of sense-data, and cannot be directly and unequivocally described in terms of sensory qualities, just the same is true of James as a physical or material object (James's "body" in an important sense of the term), if we mean by a material object, or, I would rather say, a material process, the kind of object or process dealt with by physical science. The processes which that science describes and measures are movements through (more or less) definite places in physical space (or space-time) of (more or less) definite quantities of certain fundamental entities or properties of entities which physicists call mass and energy, or the still more fundamental entity whereof mass and energy are alternative forms. A material process in this sense is not a sense-datum or a set of sense-data, but an entity whose existence and properties are inferred and not directly observed. James's "body," in this sense, is just as much and just as little an object of direct awareness as James's "soul." Of course, a material process cannot be described or distinguished from other material processes except by reference to sense-data—viz., to that family of sense-data to which it is supposed to stand in a certain special relation. That relation seems to me to be causal. And the relation which holds between a material object like a typewriter or a material process like the impact of its bars on the ribbon and my sense-data "of" that object or process is a relation of the same kind as that between a mental object such as James or a mental process such as an act of James's will and my sense-data "of" James's body. One set of sense-data maintains a certain

constant set of properties and varies in a certain consistent fashion, and this consistency is a ground for attributing them to one continuing object or process which I call "the typewriter," which contains in itself considerable complexity but is clearly marked off from other things in its neighbourhood. Another set of sense-data consistently maintains a different set of properties and a different type of variation, and this consistency is a ground for attributing them to another continuing object or process which I call "James." There are obvious and important differences between the behaviour of things like James or his cat and the behaviour of things like the typewriter and the pebbles on the beach, differences which compel us to draw a wide and important (but not necessarily absolute) distinction between the animate and the inanimate. But in both cases we have a material process which can be dealt with by physical science, measured by its methods, described in its terminology, and interpreted according to its laws. What ground is there for saying that whereas in the case of the typewriter we have a material process only, in the case of James we have two processes, a material and a mental, which are distinct from each other as well as from the sense-data?

This conclusion will be forced upon us if we take the physicists' account of the world to be not merely an accurate account as far as it goes, but also a complete, exhaustive account of the nature of the things and events it describes; if we suppose that the Matter of physics is the whole material of which the world is made up. Physics speaks merely of the movement of masses or energy-quanta; and in these terms no complete and adequate account of sensation and emotion and thought and choice can be given. Materialism, if it be the doctrine that the universe consists of matter and nothing but matter (*i.e.*, masses in motion, having "primary" qualities only) is an evident absurdity. If "nature" consists of purely material processes only, then all conscious experience must fall outside nature and must be referred to a different order of reality having

different laws. Thus the problem of Mind and Body took a special form and acquired a special urgency at the time when the principles of physics had been systematically formulated and had been claimed as an adequate "philosophy of nature." It is sufficient to mention the name of Descartes. But when we have postulated these two different and separate orders of reality, physical and mental, we are faced with the problem of getting them together again and giving an intelligible account of their relation, to which problem I think it is just to say that no satisfactory answer has been given.

If we reject this "bifurcation of nature," what else are we to say? It seems to me on the evidence much the most reasonable supposition that the physical account of nature is an account of the whole and not only a part of nature, in the sense that every process is a material process, involving the movement in physical space of mass or energy. In this sense Materialism is true. And we may therefore expect to find laws of physics which hold of all processes, organic and inorganic alike. I do not see any reason to suppose that being a material process in this sense is incompatible with being a mental, *i.e.*, a conscious process. Nor is there any good evidence for the occurrence in the world of immaterial processes, processes which do not redistribute mass and energy in space. Everything goes to show that thinking, feeling, striving all do this, and to some extent we know what particular kind of material processes they are. Every psychosis is also a neurosis of a characteristic kind; it is in the movement of matter that the soul tastes it experiences and seeks its ends. There is no mental or spiritual energy or activity over and above the physical; but the same process is at once material and spiritual, the movement of matter and the bearer of values and disvalues. At the same time, there is no reason to suppose that the physical description is a complete description of anything in the world, animate or inanimate. Nothing is merely a movement of matter. The physicists' formulæ state certain quantitative properties

of a process. It may well have many other properties too ; and in some cases it is also a maintenance of life, a loving or hating, agony or rapture, a pursuit of the truth or of a large profit. I can see no sound and acceptable sense in which the material properties of such a process are more " real " or " fundamental " than the mental properties. To say that Matter (being certain measurable properties of the total process) is the substance of the world, is at best misleading language. If therefore the problem of Body and Mind concerns the relation between processes which are material but not mental and processes which are mental but not material, it is a false problem. There are no processes which are mental but not material ; and there is no good reason to suppose that there are processes which are merely material, though the material properties of things other than persons and animals may be the only ones we can know about.

It is then a mistake to regard the mental and the material (in the sense just discussed) as separate things or processes in some way interacting or having dealings with one another. There are of course interactions between animate and inanimate things ; but these are physical interactions between one physical process and another, and physics can deal with them as such. But there is another respect in which Mind and Body do have to be distinguished as different things or processes interacting with one another. There is, as I have said, a special correspondence between my own conscious experiences and actions on the one hand and the set of sense-appearances of me (whether to myself or to others) on the other ; and likewise there is a correspondence between the conscious experiences and actions of James (as far as can be judged from his reports of them) and the set of sense-appearances of James. But this correspondence is only partial. Not all the observable changes in the appearances of my body correspond to changes in my conscious experience. Of the whole material process which makes up my material body only part belongs to my consciousness. Not all the actions of this body are

consciously willed (or experienced at all) by me, and not all its passions are felt by me. Therefore, while the complete human individual—that process of which the sensible body is an appearance, and which is, whatever other properties it may have, the material body—is a process possessing a considerable unity of character, so that it can be considered for many purposes as one thing, it is necessary to divide up this whole individual into parts which are conscious or “mental” processes and parts which are not. (At any rate, *I* am not conscious of them ; if I call them “unconscious,” it is without prejudice to the possibility that they may belong to some other consciousness.) The parts which are not conscious—I mean processes like the circulation of the blood and the growth of the toenails and the dilation of the eyes in darkness—are often referred to as “physical” or as “the body” in distinction from “the mind” of the person. For the psychologist or the philosopher this is an essential distinction, though the physicist need not bother his head about it. The conscious and the unconscious are distinct processes, and they do in some way interact (not necessarily in the same way as two colliding billiard-balls interact) : James’s indigestion does make him ill-tempered, and his ill-temper does give him indigestion. The point I wish to stress here is that this distinction between “mind” or “soul” and “body,” as conscious and unconscious factors in the total process constituting the individual, is not the same as the distinction between “mind” and “matter” in the sense discussed above. In this third type of contrast, Mind is not an immaterial process contrasted with a material process, for the conscious processes of feeling, thinking, willing are material. Nor is the Body with which Mind is contrasted just a piece of matter, a material process and nothing else ; for whether or not there are such processes in the world, a human body possesses many characteristics besides physical ones. Moreover, the unity or self-identity which entitles us to call the human body one thing, which distinguishes the bodies of men from those of sheep, and the body of James from that

of Thomas, does not consist in its being identical with one particular set of material atoms or electrons or any other units of mass or energy into which physics may analyse the world-process. On the contrary, the history of the body comprises sections of the histories of a constantly changing set of material particles. In "matter," which from one point of view is a single continuum, from another point of view a manifold of units unimaginably numerous, there is nothing which can answer to the unity of consciousness ; and it is perhaps this contrast between the unity of consciousness and the multiplicity of the material particles of the body which represents the most formidable obstacle to conceiving them as united in one person, if this union is thought of as a combining of the material particles to constitute the person. But that bodily unity with which the unity of consciousness is associated is a unity of form and not of matter, a unity of tendencies or habits or behaviour-patterns. When we talk, for instance, of the death of the body, we do not refer to an annihilation of matter, but to the cessation of a characteristic type of behaviour. There is in nature a tendency, running through a long and complex series of material changes, to bring about and maintain a certain pattern of action and passion, to expend energy in the living of a specific kind of life, to frame the available material into a characteristic form and to maintain it against any contrary tendencies that may meet it. This endeavour to live a human kind of life constitutes a human individual. The whole vital process is unitary but complex ; its parts are (not material particles, but) subsidiary processes or habits or tendencies ; breathing, digesting, seeing, conversing, fighting, making love. It is this whole vital process which is felt in consciousness as "me" or "mine." I know myself, neither as a collection of atoms, nor as a detached immaterial contemplator of material happenings, but as something which acts and feels, which in acting follows its own internal impulses and desires, and is capable of success and failure, and in feeling is aware of the difference between its own states and its

own desires on the one hand and the appearances and impacts of other things in the world on the other. The "body," in the context of this third contrast, consists of the parts of this whole vital process which are not consciously felt or willed. And these unconscious processes, habits, tendencies, partake of the same human nature as the conscious. The organisation and purposiveness which are the distinctive marks of living creatures are distinctive alike of their conscious and of their unconscious behaviour. In the living creature mind and body pursue common aims by common methods. For example, the experience of hunger and the conscious desire for food, the conscious processes of eating and defecation, are stages in a total activity of supplying-the-organism-with-nourishment which also includes a vast deal of unconscious ("bodily") activity—digesting and so forth. Moreover, the boundary between conscious and unconscious is not hard and fast but fluid. The same type of activity may be at one time conscious and at another time unconscious. Breathing, for instance, is an activity which is normally neither noticed nor controlled by the "mind," but when it is especially difficult or strenuous is so noticed and controlled, and at other times can be rendered conscious at will. That is to say, a normally automatic physical tendency may on occasion become a conscious desire. (Perhaps organic processes which are normally inaccessible to conscious attention may become accessible and so consciously controllable in unusual states of mind.) Again, the movements which I perform with full and careful attention when I am learning a new activity like cycling or playing the piano slip constantly farther from the focus of attention with repetition, and eventually come to be performed automatically without my noticing what I am doing (*i.e.*, become purely bodily). Likewise, as the psychologists keep reminding us, thoughts and desires originally conscious can become unconscious and even inaccessible to introspection. And there are many cases in which it seems most accurate to say, not that there are conscious and unconscious activities going on side by side,

but that one and the same activity is in some respects conscious and in others unconscious. For instance, in a familiar activity like walking, I am usually aware that I am walking fast or uphill or homewards, but not aware of the detailed muscular movements involved in the walking; that is, the process is in its general outline conscious, in its details unconscious (automatic). In sum, what we find in the human body-mind is not two separate entities with incompatible characters causally affecting each other here and there, nor yet a material process casting a mental shadow, but a single complex vital activity whose various elements are at different times more or less fully, distinctly and intensely felt and willed by the conscious subject, an activity constantly rising and falling in intensity and clarity of awareness. If we mean by "body" that group of unconscious activities with which a conscious mind is conjoined, then the unity of Mind and Body presents no paradox but is an evident fact: it consists in their doing the same things in the same way.

This unity is not of course absolute. On the one hand the constituent processes or tendencies, both conscious and unconscious (there is no conscious activity without its unconscious background), have a certain independence of their own and a certain capacity for separate action; one thinks of the bisected worm whose two ends pull themselves together and continue business as before; of the bit of chicken's heart continuing to beat in the laboratory long after the decease of the chicken; of the phenomena of "split personality." And on the other hand, the unity of vital activity extends in some degree beyond the bounds of individual life. The inclination to behave like a human being is transmitted by inheritance from parents to children, and is continuous throughout the history of the species. In considering the relation between conscious and unconscious activities we should do well to keep in mind this wider context.

To sum up. (1) We must distinguish sense-data (Berkeley's "ideas") from the mental continuants (Berke-

ley's "spirits") who are aware of them. But we must in the same way distinguish sense-data from non-mental continuants—"things." This distinction affords no ground for a contrast between mind and "matter."

(2) The contrast between mind and "matter" as traditionally conceived (as that which is extended, has mass, etc.) is a false contrast. Material properties are not inconsistent with mental properties, and in fact some processes possess both. They seem inconsistent only if an abstract account of "matter" is taken to be a complete account of the substance of the world.

(3) One legitimate contrast between the mental and the physical remains. The life of an individual organism comprises both conscious and unconscious actions and passions. A given conscious activity is distinct from a given unconscious activity and may be causally related to it. But conscious and unconscious processes alike are unified (make one "substance") in that they share the same character, the same habits, are organised towards the same ends. The mind is united, not to a particular set of permanent atoms, but to a series of vital processes exhibiting a particular kind of organisation and purposiveness. The unity of this process, with which the unity of consciousness is conjoined, is teleological and formal. The "body" which makes one substance with the mind is not a mass of atoms but a *nisus* towards a goal, an inclination to be human.

VII.—SOME REFLECTIONS ON MORAL-SENSE
THEORIES IN ETHICS

By C. D. BROAD

DURING the Long Vacation of 1944 I spent such time as I could spare from my other duties in reading with some care Richard Price's book *A Review of the Principal Questions and Difficulties in Morale*. This was first published in 1758, and it reached a third edition in 1787. Price died soon afterwards, viz., in 1791. Until Ross published his book *The Right and the Good* in 1930 there existed, so far as I know, no statement and defence of what may be called the "rationalistic" type of ethical theory comparable in merit to Price's. Price was thoroughly well acquainted with the works of other great English philosophers and moralists, such as Locke, Berkeley, Hume and Butler, and he develops his own views in conscious opposition to those of Hutcheson, the founder of the so-called "moral-sense" type of ethical theory.

I had thought at one time of writing a critical account of Price's doctrines. But, when I began to do so, I soon found that it would be more profitable to treat independently and in modern terminology some of the questions with which Price was mainly concerned. Therefore my further references to Price will be only occasional and incidental ; but I wish to make it plain that his book is the background of my paper, and that reading the former was the stimulus to writing the latter.

The topic with which I shall be primarily concerned may be called the "epistemology of moral judgments." This subject is of considerable interest in itself, and I think that it has been very inadequately treated by most writers on ethics. But it is important also for another reason. Questions of epistemology and of logical analysis are inter-

connected, and the answer which we give to a question of the one kind may have an important bearing on that which we should be inclined to give to a question of the other kind, e.g., I should be prepared to argue that, if ethical terms, such as *right* and *good*, are simple and non-naturalistic or are complex and contain a non-naturalistic constituent, then the concepts of them must be wholly or partly *a priori*. On the same hypothesis I should be prepared to argue that such judgments as "Any act of promise-keeping tends as such to be right" must be synthetic and *a priori*. Now it is a well-known and plausible epistemological theory that there are no *a priori* concepts and no synthetic *a priori* judgments. If I am right, anyone who feels no doubt about this epistemological theory can safely reject the analysis of moral judgments which makes them contain non-naturalistic constituents. On the other hand, anyone who feels bound to accept that analysis of moral judgments will have to reject this epistemological theory.

In the discussion which follows I shall confine myself to the concepts *right* and *wrong*, in the specifically moral sense, and to judgments in which they occur as predicates. I think that most of what I say could be transferred *mutatis mutandis* to the concepts *morally good* and *evil* and to judgments in which they occur.

As Price points out, the words "right" and "wrong" are used in at least two different senses. This is made obvious by the fact that the sentence "It is always right for a person to do what he honestly believes to be right, and wrong for him to do what he honestly believes to be wrong," is intelligible and would generally be admitted to be in some sense true. The two senses in which "right" and "wrong" occur in this sentence may be described as the "subjective" and the "material." An act is subjectively right if the consequences which the agent *expects* it to have are such as he *thinks* would be materially right in the situation as he *believes* it to be. We shall be concerned here only with material rightness and wrongness. Let us call sentences in which the words "right" or "wrong," used in the material sense, occur as predicates "deontic sentences." An example

would be "Any act of promise-breaking tends as such to be wrong."

I shall first distinguish certain alternative analyses which have been proposed for the situations expressed by deontic sentences, and then I shall consider certain alternative theories which might be held concerning deontic knowledge or belief. In the course of the discussion I shall try to bring out the relations between the two sets of theories.

(1) *Alternative Analyses of Deontic Sentences*—When a person utters such a sentence as "That act is right" he seems *prima facie* to be expressing a judgment, and in that judgment he seems *prima facie* to be ascribing to a subject a predicate which has no reference to his own or other men's sensations, emotions, desires, or opinions. But we know that such appearances may be misleading. Such sentences as "This food is nice" and "That thing is yellow" are of the same grammatical form as "That act is right." Yet everyone would hold that the predicate of the first refers to the speaker's sensations of taste, and many people would hold that the predicate of the second refers to the visual sensations of human beings. So the first question to be asked is this. Do sentences like "That act is right" express judgments at all? If not, what do they express?"

As is well known, there is a theory that such sentences do not really express judgments at all. It has been held that they express only certain emotions felt by the speaker, or certain desires of his, or certain commands. I shall call this the "Interjectional Theory." Price does not consider this extreme view. If it had been put to him, he would probably have regarded it as too fantastically absurd to be taken seriously. It is, indeed, the kind of theory which can be swallowed only after one has undergone a long and elaborate process of "conditioning" which was not available in the eighteenth century.

Suppose that the Interjectional Theory is rejected. Suppose we hold that deontic sentences do express judgments of *some* kind, and that at any rate the fact that they are in the indicative mood is not misleading. The next suggestion is that the judgments which they express are really about

certain human experiences, certain sensations or emotions or desires. I shall call this the "Subjective Theory." I shall now point out that it may take a great number of different forms, and shall try to classify them.

The factor common to all forms of the Subjective Theory is that there is a peculiar kind of experience which human beings are liable to have when they contemplate certain acts, e.g., acts of promise-keeping or of treachery, just as there is a peculiar kind of experience which they have when they look at certain objects, e.g., at snow or at soot. I propose to call this at present by the intentionally vague name "moral feeling." I use this term because it covers both sensation and emotion. Since deontic judgments take the two opposite forms "That is right" and "That is wrong," it must be assumed that moral feeling takes two opposite forms. There are analogies to this both in sensation and emotion. There are the opposed temperature-sensations of hotness and coldness, and there are the opposed non-moral emotions of love and hate. I shall speak of the "pro-form" and the "anti-form" of moral feeling, and will assume that the former is associated with judgments of rightness and the latter with those of wrongness. The first division of Subjective Theories is into *Sensational* and *Emotional*, according to whether moral feeling is held to be analogous to sensation and moral judgment to be analogous to judgments of sense-perception, or whether the feeling is held to be a form of emotion and the judgments to be concerned with that emotion.

The next division of Subjective Theories is into what I will call the "Intra-subjective" and the "Trans-subjective" varieties. According to the first of these a person who judges that so-and-so is right is asserting something about *his own* moral pro-feelings only. He is not saying anything about the moral feelings of other men. According to the second variety such a person is asserting something about all men, or most men, or a certain restricted class of men, and not only about himself.

Lastly, each of these two varieties of the Subjective Theory can be subdivided into what I call an "Occurrent"

and a "Dispositional" form. On the occurrent form of the intra-subjective variety of the subjective theory a person who says that so-and-so is right is asserting only that at this moment he is having a moral pro-emotion towards so-and-so. On the occurrent form of the trans-subjective variety of the theory he is asserting that all or most members of a certain class of men, e.g., most members of the *Athenæum*, are at present having a moral pro-emotion towards so-and-so. On the dispositional form of the intra-subjective variety of the theory he is asserting that he has a disposition to feel a moral pro-emotion whenever he contemplates so-and-so or other acts like it. He may not be feeling such an emotion at the moment when he is saying that so-and-so is right. He might not be actually witnessing or thinking of such an act at the time ; or, if he were, he might be in some special occurrent state, such as anger or jealousy, which is inhibiting or reversing his disposition to feel moral pro-emotion. On the dispositional form of the trans-subjective variety of the theory he is asserting that all or most men or all or most members of a certain class of men have a disposition to feel moral pro-emotion when they contemplate so-and-so or other acts like it. He might have strong reason to believe this even if he lacked that disposition himself. I have, e.g., strong reason to believe that most men have a disposition to like the taste and smell of apples, though I personally loathe them.

It appears then that there are at least eight possible species of the Subjective Theory, according as it is (i) sensational or emotional, (ii) intra-subjective or trans-subjective, or (iii) occurrent or dispositional. There are two remarks that I would make at this point.

(i) Even on the occurrent intra-subjective form of the theory such a statement as "That act is wrong" could be questioned without accusing the speaker of lying about his own feelings at the time. But this could happen only in one way. The speaker might be mistaken about the kind of feeling which he is having when contemplating this act. He might think that he is having a moral anti-feeling when really he is having what Sidgwick calls a "feeling of quasi-moral repugnance." I have no doubt that such mistakes are often

made by people, e.g., about their own feelings towards abnormal sexual desires and practices. (ii) I am inclined to think that the only form of the theory that is worth serious consideration is the trans-subjective dispositional form of it. But I should admit that it is not unpalatable to hold that *sometimes* when a person says that so-and-so is right or that it is wrong he may be talking only of his own disposition to have a moral pro-feeling or anti-feeling when he contemplates such acts.

So far I have spoken only of singular deontic judgments, *i.e.*, those of the form "That act is right (or is wrong)." But there are also universal deontic judgments, such as "Any act of promise-keeping tends as such to be right" or "Any act of deliberate deception tends as such to be wrong." How would the Subjective Theory deal with the latter? Let us take, e.g., the trans-subjective dispositional form of the subjective theory and consider how it would deal with "Any act of promise-keeping tends as such to be right." It would say that this is equivalent to "Any person contemplating an act which he believed to be one of promise-keeping would tend to have a moral pro-feeling in so far as he confined his attention to that aspect of the act." No doubt this might require various qualifications, e.g., we might have to substitute "any *normal* person" for "any person" in order to allow for moral lunatics, and we might have to add "provided he were in a normal state at the time" in order to allow for the possibility of his disposition to have a moral pro-feeling being inhibited or reversed if he were in a state of rage or of jealousy. But the general principle is clear enough.

Next let us suppose that all forms of the Subjective Theory are dismissed. We should then have to accept some form of what I will call the "Objective Theory." According to this a deontic judgment ascribes to an act a certain quality or relation or relational property which has no reference to the feelings or desires or opinions of the speaker or of anyone else concerning that act. Such judgments would be significant and might be true even if no human being had ever had moral feelings of any kind.

No doubt the Objective Theory might take many different forms. But for our purpose the most important principle of division is the following. Let us describe an "ethical sentence" by enumeration as any sentence in which the words "right" or "wrong," "ought" or "ought not," "morally good" or "morally evil" or mere dictionary equivalents of them occur. Now, if the words "right" and "wrong" denote opposite forms of a certain objective characteristic, the following possibilities are open about that characteristics. (i) It may be simple and therefore indefinable, as, e.g., the quality of sensible yellowness and the relation of temporal precedence are. (ii) It may be complex and therefore definable. If so, it may be definable (a) only by means of ethical sentences or (b) without the use of such sentences. The following alleged definitions of "right" would illustrate these two possibilities. The first would be exemplified if "right" could be defined only as "what it is *fitting* to approve" or only as "what is conducive to *morally good* experiences." The second would be exemplified if "right" were definable as "conducive to social stability" or as "productive of a balance of *pleasant* experiences." I propose to give the name "naturalistic" to (i) all forms of the Subjective Theory, and (ii) any form of the Objective Theory which holds that "right" and "wrong" are definable without the use of ethical sentences. I shall give the name "non-naturalistic" to any form of the Objective Theory which holds that "right" and "wrong" are either indefinable or definable only by means of ethical sentences. For the present purpose it is not important to consider whether this use of "naturalistic" and "non-naturalistic" agrees exactly either in extension or in intension with Professor Moore's usage.

Before leaving this topic there is one further remark to be made. I think it is fair to say that most competent persons who have reflected on this subject in recent years would agree that the only alternatives worth serious consideration are some form of either (a) the Interjectional Theory, or (b) the dispositional variety of the Subjective Theory, or (c) the non-naturalistic variety of the Objective Theory. Perhaps

I should add that under the head of "competent persons" in this connexion I do not include the eminent natural scientists who from time to time take a holiday from their professional labours in order to instruct us in ethical theory.

(2) *Alternative Epistemological Theories of Deontic Cognition.*—I shall begin by considering singular deontic judgments, *i.e.*, ones of the form: "That act is right (or is wrong)." Presumably those moralists who hold a Moral Sense Theory intend at least to assert that these judgments are analogous in certain important respects to judgments of sense-perception, such as "That thing is yellow."

Now the first thing to notice is that two very different accounts may be given of such judgments as "That thing is yellow." These may be described as the Naïvely Realistic Account and the Dispositional Account. I will now explain these terms.

(i) I think that the plain man in his plainer moments uncritically takes for granted that the very same sensible quality of yellowness which is presented to him when he looks at a bit of gold in white light literally pervades the surface of that bit of gold, not only when he is looking at it in white light, but also and in precisely the same sense when no one is looking at it and when it is in the dark. He believes that looking at the thing and its being illuminated by white light serve only to *reveal* to him the yellowness which has been there all the time in precisely the form in which it is now presented to him. This is what I call the "Naïvely Realistic Interpretation." Price seems to have thought that this, or something like it, is what plain men believe. He also thought that this belief is not only mistaken, but can be seen to be internally inconsistent by anyone who reflects carefully on the natures of sensible yellowness and of material objects. I must confess that I cannot see this myself.

(ii) A person who makes the judgment "That thing is yellow" may be expressing *only* his belief that it would present a yellow appearance to any normal human being who might at any time view it in white light. No doubt a person who accepts the Naïvely Realistic Interpretation also believes this conditional proposition. But this belief is

certainly not the whole of what he expresses by saying "That thing is yellow," and it might not even be a part of it. It might be for him only a very obvious and immediate consequence of what he expresses by that statement. I give the name "Dispositional Account" to the view that the whole meaning of such judgments as "That thing is yellow" is a conditional proposition of the kind which I have just enunciated.

The next point to notice is this. If a person believes that a certain thing would present a yellow appearance to any normal human being who should at any time view it in white light, he does not generally accept this conditional proposition as an ultimate fact. He generally amplifies it as follows. He ascribes to the thing a certain intrinsic property, and he ascribes to each human being a certain other intrinsic property correlated with the former. Let us call these respectively the "objective" and the "subjective correlate" in the perception of yellowness. It is held that when and only when a certain relationship is set up between a human being and this thing the subjective correlate in the person and the objective correlate in the thing together cause the thing to present a yellow appearance to the person.

This is common ground to the holders of the Naïvely Realistic and of the Dispositional Account. But there is a profound difference between them in point of detail. On the Naïvely Realistic Interpretation the objective correlate just is that quality of sensible yellowness which, according to that theory, is spread out over the surface of the thing ready to be presented whenever the appropriate revelatory conditions are fulfilled. The subjective correlate just is the power of prehending the yellowness of yellow things when such conditions are fulfilled. That power is activated whenever a person who possesses it stands in a certain bodily and mental relation to a thing which possesses yellowness.

On the Dispositional Interpretation the objective correlate is generally held to be a certain kind of minute structure and internal agitation in a thing which is not itself literally and non-dispositionally coloured. Again, the subjective correlate is not now the power of prehending the objective

correlate. We have no such power. It is the capacity to have sensations of a certain kind, called "sensations of yellowness" ; and these are not prehensions of a quality of yellowness inherent in the thing perceived. There is no such quality. That power is activated whenever a person who possesses it stands in a certain bodily and mental relation to a thing which has this peculiar kind of minute structure and internal agitation.

I do not think that anyone who accepted the dispositional interpretation would give the name "yellowness" to that minute structure and internal agitation of a colourless object which, according to him, is the objective correlate of sensations of yellow. He would confine the name "yellow" to (a) the peculiar sensible quality of certain sensations, e.g., those which he has when he looks at the yolk of an egg in white light, and (b) the dispositional property which certain things have of giving rise to such sensations in a normal human observer when he views them in white light. If he were wise, he would distinguish these two usages of the word as "sensible" and "physical" yellowness ; or he might prefer the more general phrases "occurrent" and "dispositional" yellowness. To the minute structure and internal agitation which are the objective correlate of the perception of things as yellow we might give the name "physical correlate of yellowness."

We can now see that the Moral Sense Theory of singular deontic judgments might take two entirely different forms, viz., a naïvely realistic one and a dispositional one. Both would start from the common ground that there is a peculiar kind of experience which human beings are liable to have when they contemplate certain acts, and that this can take either of two opposite forms, viz., a pro-form and an anti-form. Both would hold that this experience is of the nature of feeling, where "feeling" is used to include both sensation and emotion as distinguished from thought. From this common basis they diverge as follows :

The naïvely realistic form of the Moral Sense Theory would take moral feeling to be like what visual sensation is supposed to be on the naïvely realistic view of visual percep-

tion. When a person contemplates a certain act and has a moral pro-feeling in doing so that feeling either is or involves a prehension by him of a certain characteristic, viz., rightness, in the act ; and that characteristic belongs literally and non-dispositionally to the act quite independently of whether anyone happens to contemplate it or to have a moral pro-feeling when doing so. (I have used the alternative phrase "is or involves a prehension" rather than the simpler phrase "is a prehension" because it might well be held that a moral feeling is never *just* a prehension of the objective rightness or wrongness of a contemplated act, but is always such a prehension qualified by a certain kind of emotional tone.)

I am fairly certain that the adherents of the Moral Sense Theory did not interpret it in this way ; for they did not, I think, put a naïvely realistic interpretation on visual sense-perception. But some of them may quite likely have thought that plain men mistakenly put this interpretation both on such judgments as "That act is right" and on such judgments as "That thing is yellow." On the other hand, I suspect that Professor Moore, when he compared intrinsic goodness with yellowness in *Principia Ethica*, was tacitly assuming something like the naïvely realistic interpretation of both such judgments.

The dispositional form of the Moral Sense Theory would take moral feeling to be either (*a*) a special kind of emotion or (*b*) a sensation analogous to those of taste or smell and not to those of sight. I suppose that hardly anyone would put a naïvely realistic interpretation on such perceptual judgments as "That is bitter" even if he were inclined to put such an interpretation on judgments like "That is yellow."

Starting from this basis the theory might take the dispositional form in one or other of its main varieties. The feature common to all of them would be that the moral feeling which a person has when he contemplates an act neither is nor involves a prehension by him of an independent non-dispositional characteristic of rightness inherent in that act. On the trans-subjective variety of this theory a person who says that an act is right means, roughly speaking,

no more than that any normal person who should contemplate this act when he was in a normal condition would have a moral pro-feeling. On the intra-subjective variety of the theory the speaker would mean the same kind of thing with "he himself" substituted for "any normal person." I have little doubt that most upholders of the Moral Sense Theory meant to assert the trans-subjective variety of the dispositional form of it. But they did not always make this clear to their readers, and perhaps they were not always clear about it themselves.

It is perhaps worth remarking that the Moral Sense Theory might conceivably take the occurrent intra-subjective form. It might allege that, when a person calls an act right, all that he means is that his present contemplation of it is accompanied by a moral pro-feeling. I think that this form of the theory is so obviously inadequate that supporters of the Moral Sense doctrine can hardly have meant to assert it. But some of them may have incautiously made statements which would suggest that this is what they meant, and their opponents may sometimes have found it convenient to seize upon these as readily assailable Aunt Sallies. It seems to me that the only two forms of the Moral Sense Theory that are worth serious consideration are the naïvely realistic form and the trans-subjective variety of the dispositional form. I shall now consider them in turn.

(2.1) *Naïvely Realistic Form of the Moral Sense Theory.* The only kinds of sense-perception which can with any plausibility be interpreted in a naïvely realistic way are visual and tactual perception. Therefore the naïvely realistic form of the Moral Sense Theory will have very little to recommend it if singular deontic judgments differ from judgments of visual and tactual perception in just those respects which make a naïvely realistic interpretation of the latter plausible. It seems to me that the relevant differences are profound and that the analogies are superficial.

(i) In stating the Moral Sense Theory I have so far used the intentionally vague phrase "having a moral pro-feeling or anti-feeling when one *contemplates* an action." If singular deontic judgments are to be analogous to judgments of

visual or tactual sense-perception, this must be held to be analogous to having a sensation of yellowness when one *looks at* the yolk of an egg or having a sensation of coldness and hardness when one *touches* a block of ice. Is there any such analogy?

We must begin by distinguishing two cases, viz. (a) where one person makes a deontic judgment about an act done by another, and (b) where he makes such a judgment about an act done by himself.

(a) One person never can perceive the act of another, if by "act" we mean something to which moral predicates can be applied. He can perceive only some bit of overt behaviour on the part of another, e.g., writing a cheque and handing it over to a third person. That bit of overt behaviour may be an act of forgery or of paying a debt or of subscribing to a charity or of bribing an official. As a subject of moral predicates it is a different act according to the different intentions with which it is done. Now one person can contemplate another's intentions only in the sense of making them objects of *thought* and never in that of *perceiving* them.

I think that this suffices to wreck the Moral Sense Theory in its naïvely realistic form as applied to singular deontic judgments made by one person about the acts of another. Even if a naïvely realistic account of such judgments as "That thing is yellow" were acceptable, there would be no analogy between them and such judgments as "That act is right" when the judger and the agent are different. For "that thing," e.g., a certain bit of gold, is perceived by the person who makes the judgment that it is yellow. The thing is *perceived*; it is perceived *as yellow*; and the sensation of yellowness is an *essential constituent* of the perception of the thing. The naïvely realistic account of the situation is that the percipient is acquainted with the surface of the thing, and that the latter reveals to the percipient through his sensation of yellow that objective non-dispositional quality of yellowness which it possesses independently of human observers and their sensations. This account is here *prima facie* highly plausible. But "that act," if done by another, is not

perceived except as a bit of overt behaviour. In respect of those characteristics which make it a possible subject for moral predicates it can only be *conceived*. The moral feeling, even if it be a sensation and not an emotion only, is not an essential constituent of the perception of the act as a bit of overt behaviour ; only visual sensations are essential constituents of that perception. And finally the relation of the moral pro-feeling or anti-feeling to the *conception* of the act as, e.g., one of debt-paying or one of bribery cannot possibly be like the relation of a sensation to a perception of which it is a constituent, e.g., the relation of a sensation of yellowness to the visual perception of a thing as yellow.

(b) When a deontic judgment is passed by a person on one of his own acts the above criticism does not hold. In performing an act a person is or may be directly aware of his own intentions. He knows it directly as an act of intended bribery or forgery or debt-paying or whatever it may be, and not merely as a bit of overt behaviour of a certain kind. Similarly, in retrospection a person generally knows by personal memory what were his intentions in his own past acts. No doubt introspective self-perception and personal memory are very different in important respects from sense-perception. But they agree with it, and differ from one's awareness of the experiences of another person in being ostensibly instances of direct acquaintance with particulars. It seems to me then that, if the Moral Sense Theory in its naively realistic form is to be defended, it must be confined in the first instance to deontic judgments made by a person about his own acts. We might suppose that he derives his notions of rightness and wrongness from perceiving those characteristics in certain of his own acts by means of moral sensations. Once he has acquired the notions in this way he can proceed to apply them to the acts of other persons ; although he cannot perceive these and therefore cannot perceive their rightness or wrongness, but can have only conceptual cognition about them.

Now I think that there is a very serious objection to this view. It is certain that I have moral pro-feelings and anti-feelings *both* when I introspect or remember certain acts of

my own and when I conceptually cognise the similar acts of other persons. Now I cannot detect any relevant difference between my moral feelings in the two cases. But, as we have seen, it is impossible in the latter case to hold that there is any analogy to visual sense-perception as interpreted by the naïvely realistic theory. It is impossible to hold here that the moral feeling is a state of acquaintance with an objective characteristic of rightness or wrongness in the cognised act. Therefore it seems unreasonable to suppose that the precisely similar moral feeling which one has when introspectively perceiving or remembering one's own acts is susceptible of a naïvely realistic interpretation.

I pass now to another profound *prima facie* difference between singular deontic judgments and judgments of visual or tactual perception. If I judge that a certain act is right or that it is wrong, it is always sensible for anyone to raise the question "What *makes* it right or *makes* it wrong?" The answer that we expect to such a question is the mention of some non-ethical characteristic of the act, e.g., that it is an act of promise-keeping, of giving a false answer to a question, and so on. Let us call these "right-inclining" and "wrong-inclining" characteristics. Now the connexion between the presence of any of these non-ethical characteristics and the tendency of an act to be right or to be wrong seems to be necessary and self-evident, not causal and contingent. (I say the "*tendency* to be right or to be wrong" and not just "rightness" or "wrongness" for a reason which will be familiar to all readers of Ross's ethical writings. One and the same act may be, e.g., an act of truth-telling and one of betrayal. It is not self-evident that such an act is resultantly right or resultantly wrong. But it might well be held to be self-evident that it tends to be right in respect of being an act of truth-telling and to be wrong in respect of being one of betrayal, and that it would be right if it had no wrong-inclining characteristic and would be wrong if it had no right-inclining characteristic. These points were made clearly enough by Price, but have since been made much more clearly by Ross.)

Now the fact which I have just mentioned is relevant to

both forms of the Moral Sense Theory, but for the present we are concerned only with the naïvely realistic form of it. If I look at a thing and judge it to be yellow, it is not particularly sensible to ask "What makes it yellow?" The question is sensible only if it is interpreted causally, e.g., in some cases the answer might be that it contains saffron. And a more ultimate answer would be that it has such and such a minute structure and internal agitation. Now on the naïvely realistic theory the thing is pervaded literally and non-dispositionally by an inherent quality of yellowness; and there is no self-evident necessity for all things which have a certain kind of minute structure and internal agitation and only such things to be pervaded by yellowness. It is simply a contingent general connexion between two sets of properties of a material thing, viz., certain geometrical and kinematic properties, on the one hand, and a certain objective colour, on the other. The connexion between being an act of promise-breaking and tending to be wrong does not seem to be in the least like this.

It is worth while to remark before leaving this topic that, even if our cognition of the rightness or wrongness of acts were analogous to visual or tactual perception interpreted in the naïvely realistic way, it is quite certain that our cognition of right-inclining and wrong-inclining characteristics is not. Such characteristics as being an intentional breach of promise, an intentional return of a borrowed article, and so on are highly complex relational properties. They can be cognised only *conceptually*; it is nonsensical to suggest that they could be cognised by anything analogous to sense-perception or to introspective self-perception.

On the other hand, the fact, if it be a fact, that the connexion between certain non-ethical characteristics and the tendency to be right is necessary and self-evident is not in itself a reason for denying that rightness and wrongness are cognised by something analogous to sensation interpreted in a naïvely realistic way. For the connexion between having shape and having size is necessary and self-evident, and yet both these characteristics are cognised by visual sense-perception.

I think that the upshot of this discussion is that there is little to be said for and much to be said against the Moral Sense Theory in its naïvely realistic form as applied to deontic judgments. We can therefore pass to the Dispositional Form of the theory.

(2.2) *Dispositional Form of the Moral Sense Theory.*—I do not think that we shall be unfair to the theory if we confine our attention to the trans-subjective variety of it and if we assume that moral feeling is of the nature of emotion rather than sensation.

I shall begin with some general remarks about emotion.

(i) An emotion, e.g., an experience of fearing or hating, as distinct from an emotional mood, such as a state of apprehension or of crossness, is always directed to a cognised object. This may be real or hallucinatory, e.g., one may be afraid of a real man who is pointing a revolver at one or of an hallucinatory appearance of such a man in a dream. Again, if the object be real, it may be correctly or more or less incorrectly cognised, e.g., one may be afraid of a real physical object which one sees when crossing a field in twilight and takes to be a man pointing a revolver at one, and this object may really be a harmless scarecrow.

(ii) We must distinguish between what I will call “mediated” and “unmediated” emotions. Sometimes when a person feels a certain emotion towards a certain object he has an experience which may be described as feeling that emotion towards that object *in respect of* certain characteristics which he believes (rightly or wrongly) that it possesses. In that case I shall say that his emotion is *mediated* by this belief about the characteristics of the object, and I shall call these characteristics the “mediating characteristics” of the emotion. Often, however, the emotion is not felt in respect of any characteristic which the experient believes the object to have. In that case I shall say that the emotion is *unmediated*. If I am angry with a person, e.g., I may feel this anger in respect of some fault which I believe (rightly or wrongly) that he has committed. But I may feel angry with a person, and still more obviously I may dislike him, just directly and, as we say, “for no

assignable reason." This is an example of an *unmediated* emotion.

(iii) Presumably every occurrence of any emotion, whether mediated or unmediated, has a *total cause*. In many cases, no doubt, an essential factor in that cause is the presence of certain characteristics in the object. I will call these "evoking characteristics." In the case of a mediated emotion the evoking and the mediating characteristics may be, and no doubt often are, wholly or partly the same. But very often they must be different ; for the object often does not really have the characteristics which the experient believes it to have and in respect of which he feels his emotion towards it.

(iv) It is commonly held that certain kinds of emotion are in some sense "appropriate to" objects which have certain characteristics, and that they are "inappropriate to" objects which lack these or which have certain others, e.g., fear is held to be appropriate only to objects which are dangerous. Again, it is held that for a given degree of dangerousness there is, within fairly narrow limits, a fitting degree of fear. To fear objects which are not really dangerous is described as "irrational" ; and to fear intensely objects which are only slightly dangerous is described as "inordinate."

It is a well-known fact that if a person begins by feeling an unmediated emotion towards an object he is very liable to go on to ascribe to that object such characteristics as would make the emotion appropriate and to ascribe to those characteristics such a degree as would make his emotion ordinate. A very familiar example of this is provided by persons who are jealous of others. Lastly, if a person feels a mediated emotion towards an object in respect of a characteristic to which that emotion is inappropriate, he is very liable to divert his attention from this fact and to ascribe to the object another characteristic in respect of which the emotion would be appropriate. These tendencies, which have been perfectly familiar to playwrights, preachers and plain men throughout the ages, have been hailed as great discoveries of modern psychology under the name of "rationalisation."

We are now in a position to consider the trans-subjective dispositional form of the Moral Sense Theory. In essence the theory is that such judgments as "That act is right (or is wrong)" are analogous to such judgments as "That food is nice (or is nasty)." The correct analysis of them is some variant on the formula "That act would evoke a moral pro-emotion (or anti-emotion) in any human being who might at any time contemplate it." There might have to be qualifications about the individual being "normal" and being "in a normal state," but we need not trouble about them at present.

Now this form of the theory does avoid the first objection which I made against the naïvely realistic form of it. It does not have to assume that one person literally has knowledge by acquaintance of the intentions of another. It does not have to assume that the experience of having a moral feeling when contemplating an act of one's own is fundamentally different in kind from that of having a moral feeling when contemplating a similar act of another person. For we can and do have emotions towards objects which are cognised only conceptually, and we can and do feel such emotions in respect of characteristics whose presence is only conceived and not perceived.

It seems to me that the main difficulties of the theory can be summed up in the following three questions: (i) Can it deal with the fact that judgments like "That act is right" seem always to be grounded upon the supposed presence in the act of some non-ethical right-inclining characteristic, such as being the fulfilment of a promise? (ii) If so, can it deal with the further fact that the connexion between a right-inclining characteristic and the rightness which it tends to convey seems to be necessary and synthetic? And (iii) can it deal with the fact that it seems not only intelligible but also true to say that moral pro-emotion is felt towards an act in respect of the characteristic of *rightness* and moral anti-emotion in respect of the characteristic of *wrongness*? I shall take these three questions in turn.

(i) I think that a fairly plausible answer, so far as it goes, can be made to the first question. We shall have to say that

the right-inclining characteristic which is the ground of the judgment "That act is right" just is the mediating characteristic of the moral pro-emotion which is felt towards such acts. To say that every moral judgment is founded upon some non-ethical characteristic of the act which is its subject will be equivalent to saying that every moral emotion is a mediated emotion. Such characteristics as being an act of promise-keeping will be mediating characteristics for moral pro-emotion; such characteristics as being an act of lying or of deliberate cruelty will be mediating characteristics of moral anti-emotion.

It should be noticed that the theory can account quite plausibly for the facts which Ross describes under the head of his distinction between "*prima facie* duties" and "a duty proper." (I prefer to use the phrases "components of obligation" and "resultant obligation.") An act is known or believed to have various characteristics, e.g., to be an act of truth-telling, a breach of confidence, and an optimific act. The first and the third of these features give rise to components of obligation of various degrees of urgency towards doing it; the second gives rise to a component of a certain degree of urgency against doing it. According to circumstances the resultant obligation may be to do it or to avoid doing it. Now it is a perfectly familiar fact that an object may have several characteristics, and that it may call forth an emotion of one kind in respect of some of them and an emotion of the opposite kind in respect of others; so that the emotion towards the object as a whole may be predominantly of the opposite kind. The present theory would say that we tend to feel a moral pro-emotion of a certain strength towards the act in respect of its being one of truth-telling and in respect of its being optimific; that we tend to feel a moral anti-emotion of a certain strength towards it as being a breach of confidence; and that our moral emotion towards it as a whole is the resultant of these two tendencies, and may be either predominantly *pro* or predominantly *anti* according to circumstances.

(ii) The second question is much harder. It is alleged, e.g., that the proposition "Any act of promise-keeping tends

as such to be right, and any act of promise-breaking tends as such to be wrong" is necessary, self-evident, and synthetic. On the present theory of deontic judgments this would be equivalent to something like the following proposition: "It is necessary, self-evident and synthetic that any human being who should contemplate an act which he believed to be one of promise-keeping would tend to feel a moral pro-emotion towards it, and that he would tend to feel a moral anti-emotion towards any act which he believed to be one of promise-breaking."

Now it might be objected that the latter statement is certainly false. It is a purely contingent fact that human beings have a disposition to feel moral emotions at all. They might have been as devoid of them as they are of a disposition to have special sensations in presence of magnets. Moreover, granted that they do have such an emotional disposition, it is a purely contingent fact that moral emotions are mediated in the particular ways in which they are. It is quite conceivable that the belief that an act is one of promise-keeping should have mediated a moral *anti*-emotion, and that the belief that it is one of promise-breaking should have mediated a moral *pro*-emotion; just as it is conceivable that men should have liked the taste of castor oil and disliked that of sugar. In that case, on the present theory, promise-breaking would have tended to be right and promise-keeping to be wrong; just as castor oil would have been nice and sugar nasty.

So the objection comes to this. If the present form of the Moral Sense Theory were true, certain propositions which are in fact necessary and knowable *a priori* would have been contingent and knowable only empirically. Therefore the theory is false. I am sure that this is the most important of Price's objections to the Moral Sense Theory, though I have developed it in my own way. What are we to say about it?

It is plain that there are only two lines of defence open to the present form of the Moral Sense Theory. (a) One is to argue that propositions like "Any act of promise-keeping tends as such to be right" are *not* necessary. (b) The other is to argue that propositions like "Any human being who

should contemplate an act which he believed to be one of promise-keeping would tend to feel a moral pro-emotion towards it" are *not* contingent. Let us consider the two alternatives in turn:

(a) I think that this line of argument would divide into two parts, which might be called the "offensive" and the "defensive." The offensive part would take the opposite view as a hypothesis and try to show that it is untenable. The defensive part would try to explain why certain propositions which are in fact empirical and contingent appear to many people to be *a priori* and necessary.

(a, α) The offensive part may be put as follows: What precisely do our opponents maintain? If we may take Price as their ablest representative, they seem to assert something like the following doctrine. Suppose that a person reflects, e.g., on the situation of being asked a question and on the notions of responding to it by a true answer and responding to it by a false answer. Then he will find it self-evident that the former kind of response has a certain relation of "moral fittingness" and that the latter has an opposite relation of "moral unfittingness" to such a situation. This relation of moral fittingness or unfittingness is held to be unique and unanalysable. And the process of recognising that it necessarily holds between certain kinds of response and certain kinds of situation is held to be analogous to that of recognising that certain mathematical terms, e.g., stand in certain mathematical relations.

Now the objection which will be made by supporters of the Moral Sense Theory is twofold. It will be said that the doctrine just enunciated involves *a priori* concepts and synthetic *a priori* judgments, and that neither of these is admissible. We will take these two points in order.

If there is a simple unanalysable relation of moral fittingness or unfittingness, it is certainly not manifested to us by any of our senses. We literally *see* that one coloured patch is surrounded by another; we literally *hear* that two notes, sounded together or in very close succession, concord or discord with each other; and so on. In such cases we presumably derive our ideas of the relation of *surrounding*

and the relation of *concording or discording* by comparison and abstraction from such sensibly presented instances of terms standing in these relations. It is plain that we do not acquire the idea of moral fittingness or unfittingness in this way. Nor do we derive the idea from instances of terms presented to us by introspection as standing in that relationship. Introspection presents us with certain of our own experiences as standing in certain temporal relations, e.g., as being in the same specious present and partly overlapping in time, and so on. Again, since the relation of moral fittingness or unfittingness is held to be simple and unanalysable, the idea of it cannot be one which we have constructed in thought from elements presented separately or in different contexts by sensation or introspection or both. (The idea of the complex relationship of a colonel to the subordinate officers of his regiment, e.g., is no doubt reached in some such way as this.) But it is held by many philosophers to be a fundamental epistemological principle that every idea is either derived by abstraction from instances presented in sensation or introspection or is an intellectual construction from elements so derived. If this principle be admitted, it is impossible that we should have any conception of the relations of moral fittingness and unfittingness as described by such moralist as Price.

For my part I attach very little weight to this argument. I can see nothing self-evident in what I will call for short "Hume's Epistemological Principle," and I am not aware that any conclusive empirical evidence has been adduced for it. It seems to me to be simply a useful goad to disturb our dogmatic slumbers, and a useful guide to follow until it begins to tempt us to ignore some facts and to distort others. I am inclined to think that the concepts of Cause and of Substance are *a priori* or contain *a priori* elements ; at any rate I have never seen any satisfactory account of them in accordance with Hume's Principle.

The second point in the offensive part of the argument is this : Suppose, if possible, that "right" and "wrong" are simple unanalysable notions, as Price, e.g., held them to be. Then any proposition which asserts a connexion between

some non-ethical characteristic, such as promise-keeping, and tendency to be right must be synthetic. Now a proposition may be synthetic and contingent or analytic and necessary, but it is an admitted general principle that no proposition can be both synthetic and necessary. Therefore the combined doctrine that "right" and "wrong" are unique unanalysable notions and that such propositions as "Any act of promise-keeping tends as such to be right" are necessary must be false.

Such an argument would have different effects on different persons. Suppose that *A* and *B* are both quite convinced up to a certain moment of the truth of a certain general principle, and suppose that at that moment *C* brings to their notice an apparent counter-instance. If each is to be self-consistent, *something* will have to give way in each of them. But it need not be the same something. *A* may remain completely certain of the general principle; he will then have to maintain that the instance is only apparently contrary to it and explain why it seems to be so. *B* may find it impossible to doubt that the instance is contrary; he will then be forced to give up the general principle and explain why it seemed evident. These are the two extreme possibilities. Between them are numberless possible intermediate alternatives, where the person concerned is led to feel *some* doubt of the unqualified truth of the principle and *some* doubt whether the apparent counter-instance really conflicts with it. Speaking for myself, I occupy one of these intermediate positions. As for Price, he would have been completely unmoved by this kind of argument. For he held, in full knowledge of Hume's doctrine and in conscious opposition to it, that there are plenty of synthetic necessary facts in other departments beside that of morals. For these reasons I think that it is rather futile to rely on a general argument of this kind.

(α , β) The defensive part of the argument might take the following line. Civilised men throughout human history have been assiduously conditioned in infancy and youth by parents, nurses, schoolmasters, etc., to feel moral pro-emotions towards acts of certain kinds and to feel moral anti-

emotions towards acts of certain other kinds. Moreover, if we consider what kinds of acts are the objects of moral pro-motions and what kinds are the objects of moral anti-emotions we notice the following facts about them. The former are acts whose performance by most people on most occasions when they are relevant is essential to the stability and efficient working of any society. The latter are acts which, if done on many occasions and by many people, would be utterly destructive to any society. On the other hand, the former are acts which an individual is often strongly tempted to omit, and the latter are acts which he is often strongly tempted to commit. This is either because we have strong natural impulses moving us to omit the former and to commit the latter, or because the attractive consequences of the former and the repellant consequences of the latter are often remote, collateral, and secondary. It follows that any group of men in which, from no matter what cause, a strong pro-emotion had become associated with acts of the first kind and a strong anti-emotion with acts of the second kind would be likely to win in the struggle for existence with other groups in which no such emotions existed or in which they were differently directed. Therefore it is likely that most of the members of all societies which now exist would be descendants of persons in whom strong moral pro-motions had become attached to acts of the first kind and strong anti-emotions to acts of the second kind. And most existing societies will be historically and culturally continuous with societies in which such emotions had become attached to such acts. These causes, it might be argued, conspire to produce so strong an association between such emotions and such acts in most members of every existing society that the connexion between the emotion and the act seems to each individual to be necessary.

No doubt this line of argument will produce different effects on different persons. For my own part I am inclined to attach a good deal of weight to it.

(b) I pass now to the second kind of defence which might be made for the dispositional form of the Moral Sense Theory. This is to contend that the proposition about human

emotional dispositions which, according to the theory, is equivalent to "Any act of promise-keeping tends as such to be right" is necessary. It might be thought that this contention is so palpably absurd as not to be worth putting forward. But I believe that a case can be made for it, and I propose to make it.

We must begin by noting that the proposition which is equivalent to "Any act of promise-keeping tends as such to be right" could not with any plausibility be taken to be the crude unqualified proposition "Any human being has a disposition to feel a moral pro-emotion whenever he contemplates an act which he believes to be one of promise-keeping." So far from being necessary the latter proposition is not even true. To make it true it will have to be qualified somewhat as follows. We must substitute for it the proposition "Any *normal* human being has a disposition to feel a moral pro-emotion towards any act which he believes to be one of promise-keeping if he contemplates it when he is in a *normal* state."

Now it might be argued that, when the proposition is thus qualified, it *is* necessary. For, it might be said, it has then become *analytic*. It is part of the definition of a "normal" human being that he has a disposition to feel moral emotion, and that he will feel that emotion in its pro-form towards acts which he believes to be ones of promise-keeping, of truth-telling, of beneficence, and so on. And it is part of the definition of "being in a normal state" that when one is in such a state this moral-emotional disposition will not be inhibited altogether or excited in abnormal ways.

No doubt the immediate answer which an opponent of the Moral Sense Theory would make to this contention is the following: He would say that such propositions as "Any act of promise-keeping tends as such to be right" are not only necessary but *synthetic*. The defender of the dispositional form of the Moral Sense Theory has shown that, on his analysis, they would be necessary only at the cost of showing that they would be *analytic*. This answer is correct so far as it goes, but I think that the defender of the Moral Sense Theory could rebut it as follows.

The fact is that it is often by no means easy to say whether a proposition is analytic or not. The analytic propositions of real life are not like the trivial examples in logic-books, such as "All negroes are black" or "All right angles are angles." The following are much better worth considering, e.g., "The sun rises in the east," "A freely suspended magnet sets itself with its axis pointing north and south," and "Pure water boils at 100° C. under a pressure of 76 centimetres of mercury." The first of these is analytic if "east" and "west" are defined by means of the sun, and synthetic if they are defined by means of the magnetic or the gyroscopic compass. The second is analytic if "north" and "south" are defined by means of the magnetic compass, and synthetic if they are defined by means of the sun or the gyroscopic compass. The third might be taken as a definition of ' 100° C.' But if that term were defined in some other way, e.g., thermodynamically, as on Lord Kelvin's absolute scale, it might be regarded as an analytic proposition about *pure water*. For an important element in the definition of "pure water" is that it has a certain boiling-point under certain standard conditions.

Two important points emerge from these examples. The first is that the same type-sentence may express both an analytic and a synthetic proposition, and that a person who uses several tokens of this type even in a single discourse may sometimes be expressing the analytical and sometimes the synthetic proposition. The former is necessary and the latter is contingent. It would not be surprising if a person should sometimes become confused in such cases and think that every token of this type expresses *one and the same proposition* which is *both* synthetic and necessary.

The second point is this. Such an analytic proposition as "Pure water boils at 100° C. under a pressure of 76 centimetres of mercury" has at the back of it a whole system of interconnected empirical generalisations, apart from which it would never have been worth anyone's while to formulate it. It would take me far too long even to begin to state a few of these empirical generalisations. It will suffice to say that they are all represented in the various qualifications

which make the proposition "Pure water boils at 100° C. under a pressure of 76 centimetres of mercury analytic.

Now it might be suggested that facts like these throw some light on the alleged synthetic necessity of such propositions as "Any act of promise-keeping tends as such to be right," and on the claim of defenders of the dispositional form of the Moral Sense Theory that the equivalent propositions about human emotional dispositions are necessary because analytic.

The proposition "Any act of promise-keeping would tend to call forth a moral pro-emotion in any *normal* human being who might contemplate it when in a *normal* state" is obviously rather like the proposition "Any sample of *pure* water boils at 100° C. under the *normal* atmospheric pressure, i.e., 76 centimetres of mercury." Just as the latter is analytic, but is founded on a whole mass of interconnected empirical generalisations, so is the former. I will now try to justify this statement.

It is an empirical fact that the vast majority of men have a disposition to feel moral emotions, and that the minority who lack it differ in many other ways from the majority of their fellows. It is an empirical fact that there is very substantial agreement among men in the kinds of act which call forth moral pro-emotion and in the kinds which call forth moral anti-emotion. The small minority of men who habitually feel moral pro-emotion where most of their fellows feel moral anti-emotion, or *vice versa*, are generally found to be odd and abnormal in many other ways. There is, in fact, so high a degree of positive association between moral and non-moral normality that it would make very little difference in practice whether we defined a "normal" man solely by reference to his moral dispositions or solely by reference to his non-moral dispositions, or by reference to a mixture of both. But the proposition that any normal human being would tend to feel a moral pro-emotion towards any act which he believed to be one of promise-keeping would be synthetic if one defined "normality" solely by reference to non-moral dispositions, whilst it might well be analytic if one defined it wholly or partly in terms of moral dispositions.

Again, there is a very high degree of positive association between the tendencies to feel moral pro-emotion towards acts of promise-keeping, of truth-telling, of beneficence, etc. ; and there is perhaps an even stronger degree of positive association between the tendencies to feel moral anti-emotion towards acts of treachery, of unfairness, of cruelty, etc. Therefore it would make little practical difference which of these mediating characteristics was included and which was omitted from the definition of "normality." Now, if the tendency to feel moral pro-emotion towards any act which is believed to be one of promise-keeping were included in the definition of "normality," the proposition that any normal man would tend to feel such an emotion towards such acts would be analytic ; whilst, if this were omitted and "normality" were defined by reference to some of the other mediating characteristics of moral emotion, this proposition would be synthetic.

It therefore seems likely that, if the analysis which the dispositional form of the Moral Sense Theory offers for such propositions as "Any act of promise-keeping tends as such to be right" were correct, a sentence of this type might often express a proposition which is analytic and necessary and might as often express one that is synthetic and contingent. If so, it is not unlikely that a confusion should arise and that it should be thought that *every* such sentence expresses one and the same proposition which is *both* necessary and synthetic.

It remains to say something of the qualification "when in a normal state," which has to be added to make the statement universally true, and which at the same time makes it more nearly analytic. It may be compared to the qualifications about the water being pure and the barometric pressure being normal in my example about boiling-point.

At the back of this qualification lie certain negative and certain positive empirical facts. It is found that a person who generally does feel moral pro-emotions towards acts of certain kinds and moral anti-emotions towards acts of certain other kinds will on some occasions not do so. He may feel no moral emotion ; or perhaps on very exceptional

occasions the normal form of his moral emotion may be reversed. These are the negative facts. The positive facts are certain empirical generalisations about the kinds of occurrent conditions under which such inhibitions or reversals of moral emotion tend to take place. "Being in a normal state" is then defined in terms of the absence of such conditions, e.g., not being angry with or jealous of or frightened by the agent whose act is being contemplated. Now, although one has at the back of one's mind a fairly adequate but rather confused idea of these negative conditions, only one or two of them will be explicitly before one's mind on any particular occasion when one uses the expression "in a normal state." According as one or another is in the foreground on a given occasion the same sentence may express an analytic or a synthetic proposition.

I suggest, then, that defenders of the dispositional form of the Moral Sense Theory might attempt in some such ways as these to rebut the objection that, whilst propositions like "Any act of promise-keeping tends as such to be right" are *necessary and synthetic*, the propositions which it asserts to be their equivalents are either *contingent or analytic*.

(iii) The third difficulty which the Moral Sense Theory, in the form of it which we are considering, has to meet is this. It might be alleged that the mediating characteristics in respect of which a person feels moral pro-emotion or anti-emotion towards an act which he contemplates are the supposed *rightness* or *wrongness* of the act. Suppose, e.g., that a person feels a moral anti-emotion when he contemplates an act which he believes to be one of promise-breaking. Then, it might be said, he does so only in so far as he believes promise-breaking to be wrong. Suppose that he believed the act to be one of promise-breaking but did not believe that such acts tend to be wrong. Then, it might be alleged, there is no reason to think that he would feel a moral anti-emotion towards it.

Let us begin by considering what view a Rationalist, like Price, would take on this question of the mediating characteristics of moral emotion. I think that the following is a

fair statement of his position. It is a necessary proposition that any rational being who contemplated an act which he believed to be one of promise-breaking would tend to feel towards it a moral anti-emotion. But, though true and necessary, it is not self-evident. It is a logical consequence of two more fundamental propositions, each of which is self-evident. They are these: (a) It is self-evident to any rational being that any act of promise-breaking tends as such to be wrong. (b) It is self-evident that any rational being who contemplated an act which he believed to be wrong would feel towards it a moral anti-emotion.

We have already considered what the supporters of the Moral Sense Theory might say about the first of these propositions. What are we to say about the second? It seems to me that everything depends here on how much we put into the connotation of the phrase "rational being." On a narrower interpretation of that phrase proposition (b) is synthetic but contingent, on a certain wider interpretation that proposition becomes necessary but analytic. Sometimes the one interpretation and sometimes the other is at the back of one's mind without one realising the fluctuation, and so one is inclined to think that proposition (b) is both necessary and synthetic.

A "rational being," on the narrowest interpretation, means roughly one who is capable of comparing, abstracting, and forming general notions; who is capable of seeing necessary connexions and disconnexions between terms and between propositions; and who has the power of making inferences, both deductive and inductive. I call this the "narrowest" interpretation, because it takes account only of cognitive characteristics and leaves out emotional and conative ones. The next stage in widening it would be to include in the definition of a "rational being" what I will call "purely intellectual" emotions and conations, e.g., intellectual curiosity, taking pleasure in neat arguments and displeasure in clumsy ones, desire for consistency in one's beliefs, and desire to apportion the strength of one's beliefs to the weight of the evidence.

Let us say that a person who had the cognitive, conative

and emotional dispositions which I have just enumerated would be rational "in the ethically neutral sense." Suppose that Price were correct in thinking that moral fittingness and unfittingness are relations which hold of necessity between certain types of response and certain types of situation. Then a person who was rational in the ethically neutral sense would in principle be capable of having ideas of right and wrong and of making moral judgments. (I say "in principle" because (a) he would, by definition, have the *general* capacity to see necessary connexions between terms and between propositions, whilst (b) it might happen that his insight in this particular department was lacking, as that of some rational beings is in the department of mathematical relations.) But, so far as I can see, there would not be the slightest inconsistency in supposing that a being who was rational in the ethically neutral sense, and did in fact have the ideas of right and wrong and make moral judgments, was completely devoid of specifically moral emotion and conation. The fact that he knew or believed *A* to be right and *B* to be wrong might arouse in him neither moral pro-emotion towards the former nor moral anti-emotion towards the latter, and it might not evoke in him the slightest desire to do *A* or to avoid doing *B* or *vice versa*. I cannot see any *logical* impossibility in the existence of such a being ; whether it would involve a conflict with some of the *de facto* laws of psychology I do not know.

Now the vast majority of the beings whom we know to be rational in the ethically neutral sense do in fact feel moral pro-emotion towards acts which they believe to be right and moral anti-emotion towards those which they believe to be wrong, and they are in fact to some extent attracted towards doing the former and repelled from doing the latter. Moreover, it is *logically* impossible that these specifically moral emotions and desires should exist in a being who was not rational in the ethically neutral sense ; for their characteristic objects can be presented only by a process of reflective thinking. The wider interpretation of the phrase "rational being" includes these specifically moral conative and emotional characteristics in addition to those which con-

stitute the definition of "rational" in the ethically neutral sense. It is, of course, logically impossible that a person who is rational in this widest sense should fail to feel moral pro-emotion towards what he believes to be right and moral anti-emotion towards what he believes to be wrong. But this is a merely analytical proposition. It is synthetic and contingent that a person who is rational in the ethically neutral sense should be so in the wider ethical sense also. But the fact that rationality in the ethically neutral sense is almost invariably accompanied in our experience by the additional features which convert it into ethical rationality and the fact that the latter logically entail the former produce a confusion in our minds. We are thus led to think that the proposition that any rational being would feel a moral pro-emotion towards any act which he believed to be right and a moral anti-emotion towards any that he believed to be wrong is both necessary and synthetic.

So much for the Rationalist account of moral emotion and its mediation by the characteristics of rightness and wrongness. What can the Moral Sense Theory, in its trans-subjective dispositional form, make of the alleged facts?

On the face of it this theory is presented with the following difficulty. Suppose that we try to combine the alleged fact that rightness and wrongness are the mediating characteristics for moral emotion with the analysis of moral judgments given by the theory in question. Then we seem to be committed to the following proposition: "A person will tend to feel a moral anti-emotion towards an act which he believes to be one of promise-breaking so far and only so far as he believes that most persons when in a normal condition would feel such an emotion in contemplating such an act." Now this has a *prima facie* appearance of circularity; and, even if it be neither logically nor causally circular, it certainly does not seem very plausible.

The first remark that I have to make is that the objection just stated rests on a premiss which is plausible but false. It tacitly assumes that, if the correct analysis of the proposition "*S* is *P*" is "*S* is *p*₁-and-*p*₂," then anyone who is believing the former proposition is *ipso facto* believing the latter. Now

there may be some sense of "believe" in which this is true ; but there certainly is an important sense in which it is false. It is quite obvious that a number of persons who accept different and incompatible analyses of a proposition may all believe it ; and therefore there must be a sense in which some at least of them believe it without *ipso facto* believing the proposition which is its correct analysis. This is particularly obvious in the present case. Nearly everyone believes that acts of promise-breaking tend as such to be wrong ; but some of these persons think that wrongness is a simple characteristic, others think that it can be analysed in one way, and others think that it can be analysed in various other ways. So, even if the correct analysis of "*X* is wrong" is "Any normal person who should contemplate such an act as *X* when in a normal state would feel a moral anti-emotion towards it," it does not follow that the correct analysis of "*A* believes that *X* is wrong" is "*A* believes that any normal person who should contemplate such an act as *X* when in a normal state would feel a moral anti-emotion towards it." So it is not fair to say that the Moral Sense Theory must hold that anyone who feels a moral anti-emotion towards an act in respect of his belief that it is wrong is *ipso facto* feeling that emotion in respect of his belief that any normal person would feel such an emotion if he were to contemplate such an act while in a normal state.

I suppose that this argument would be generally admitted as applied to the case of a person who did not accept, or did positively reject, the analysis of moral judgments proposed by the Moral Sense Theory. But it might be said that it will not apply to the case of a person who accepts that analysis. I think, however, that even this could be questioned. A person may have assented to a certain analysis of a proposition when the question of its analysis and the arguments *pro* and *con* were before his mind. He may continue to accept it, in the *dispositional* sense that he *would* assent to it again at any time when the question was raised for him. But during the intervals he may often have the experience of believing the proposition without thinking of the analysis of it which he has accepted. Therefore it seems to me that

even an adherent of the Moral Sense Theory might often feel a moral anti-emotion towards an act in respect of his belief that it is wrong without *ipso facto* feeling that emotion in respect of the belief that it has those characteristics which he holds to be the correct analysis of "being wrong."

So much for the dialectics of the matter. But what is really happening when a person is said to feel a moral pro-emotion or anti-emotion towards an act in respect of his belief that it is right or that it is wrong? We must begin by distinguishing what I will call "first-hand" and "second-hand" emotion. Suppose that a certain word has been very often used in connexion with objects towards which a certain kind of emotion has been felt and that it has seldom or never been used except on such occasions. Then this word may come to act as a stimulus calling forth this kind of emotion. When the emotion is evoked in this way I call it "second-hand."

Now there is no doubt that a great deal of moral emotion is, in this sense, second-hand. And there is no doubt that the words which have come by association to act as evokers of second-hand moral emotion are the words "right" and "wrong." When a person is said to feel a moral emotion towards an act in respect of his belief that it is right or that it is wrong what is really happening is very often the following. He knows or believes that acts of this kind are commonly *called* "right" or called "wrong." He repeats these words *sotto voce* to himself or has auditory images of them when he thinks of the act in question; and by association they evoke a second-hand moral pro-emotion or anti-emotion towards the act. Plainly there is nothing in this to cause difficulty to the supporters of the Moral Sense Theory.

But of course this does not cover the whole field. There is first-hand moral emotion; indeed, if no one had ever felt a first-hand emotion of a given kind, it is difficult to believe that anyone could now feel a second-hand emotion of that kind. What is happening when a person is said to be feeling a *first-hand* moral emotion towards an act in respect of his belief that it is right or that it is wrong? I can give only a very tentative answer to this question, based on my own

imperfect introspection of a kind of situation with which I am not very familiar.

It *seems* to me that in such cases I do not first recognise or think that I recognise a quality or relation of rightness or wrongness in the act, and *then* begin to feel a moral pro-motion or anti-emotion towards it in respect of this knowledge or belief. What I seem to do is to consider the act and its probable consequences under various familiar headings. "Would it do more harm than good? Would it be deceitful? Should I be showing ingratitude to a benefactor if I were to do it? Should I be shifting onto another person's shoulders a burden or a responsibility which I do not care to bear for myself?" In respect of each of these aspects of the act and its consequences I have a tendency to feel towards the act a certain kind of moral emotion of a certain degree of intensity. These emotional dispositions were largely built up in me by my parents, schoolmasters, friends and colleagues; and I know that in the main they correspond with those of other persons of my own nation and class. It seems to me that I call the act "right" or "wrong" in accordance with my final moral-emotional reaction to it, after viewing it under all these various aspects, and after trying to allow for any permanent or temporary emotional peculiarities in myself which may make my emotional reaction eccentric or unbalanced. By the time that this has happened the features which I had distinguished and had viewed and reacted to separately have fallen into the background and are again fused. They are the real mediating characteristics of my moral pro-emotion or anti-emotion; but I now use the omnibus words "right" or "wrong" to cover them all, and say that I feel that emotion towards the act in respect of my belief that it is right or that it is wrong.

VIII.—THE CONSTRUCTION OF REALITY

By H. ZANSTRA

1. *Direct experiences and strict logic.* The problem : how is knowledge beyond one's own present consciousness obtained ?

ACCORDING to Berkeley,* all that reality ever can deal with consists of the minds of living beings taken in the widest sense and what happens in these minds. In the following we shall deal with minds as subject of our knowledge, in particular with their experiences and the relations among them, leaving aside whether or not this can be the sole subject as Berkeley asserts. The material at the disposal of each one of us to this end is confined to the present, the I and the conscious. Logic, in so far as it gives infallible results from strictly true premises, may be considered to be based on the two Laws of Thought : (1) the law of identity, viz., A is A, and (2) the law of contradiction, viz., "A is B" and "A is not B" cannot both be true. (A and B stand for ideas.) This part of logic may be called "strict logic." Strict logic only operates by division and comparison to which the given material is subjected. Hence strict logic operating on this material alone can never furnish any oneany knowledge of a greater extent than the present-I-conscious.

The experiences of one's own present consciousness will be called *direct experiences*. Now each of us is convinced that he is justified in speaking about his own experiences in the past, also about other people existing, having and having had experiences, also about experiences he and others may have in the future. Many of us, moreover, are convinced that a meaning is to be attached to unconscious experiences. Thus we are convinced that the domain of human knowledge is not confined to the direct experiences available but that it also covers these other experiences which will be termed *indirect*.

* G. Berkeley. Treatise on the principles of human knowledge.

The problem at issue is now : how is this knowledge beyond one's own present consciousness obtained ?

Our main purpose has been to give a connected treatment of this well-known problem. That for the extension of the domain of knowledge beyond one's present consciousness the principle of induction is required as a belief has been realised by many writers, whereas Langley* has called attention to the belief in the reliability of memory. In addition to this, we have particularly endeavoured to examine various questions in relation to memory and (very briefly) to the so-called specious present. The chapters on these subjects contain the main new contributions ; in particular, it is believed that the conception of memory as a special type of clairvoyance and the fact that the use of the specious present requires the belief in the persistence of impressions are more or less original. Otherwise the treatment is meant to be clarifying, and the newness, if any, is rather in the combination of known ideas than in each idea considered by itself.

2. *Indirect experiences of the past by memory the most certain.
Memory a type of clairvoyance.*

Though, as we have seen, the available experiences for each of us are limited to this present consciousness, and no process of strict logic can carry us beyond this, yet the domain of reality which is the subject of our knowledge is much wider. Each of us concludes somehow that he himself has existed in the past and that there are other living beings existing besides himself who have and have had experiences. The reality of my own past and of other persons are the first and most important domains of the knowledge I gain. Of these two my own past seems most certain ; it is easier to doubt the existence of other human beings than to doubt that I have existed before the present moment. This is shown by the fact that a hypothetical someone who believes that he is the only being in existence and other persons are illusory has been introduced into philosophy and been called a solipsist. But for a person who would believe that his own past is illusory, that he has never experienced, thought or suffered before the present moment, we have thus far not even had a name. Also it seems that knowledge of one's own past

* G. H. Langley, *Philosophy* 8, 66 (1933).

gained by memory would be the prerequisite before all other knowledge, since the available material of present experiences, with the memory-impressions left out as such, would hardly suffice to draw such conclusions as the existence of other persons. One reason why we feel knowledge from memory to be more certain than other inferred knowledge is, perhaps, that the form in which it comes to us is more direct, since we conceive of the memory impressions as more or less faithful reproductions of past experiences. A better reason, perhaps, is the one cited above that knowledge from memory does not require any other knowledge, but other knowledge, as that of the existence of other persons, is always in part acquired by means of memory.

Nevertheless, the extreme sceptic would doubt the reliability of his memory as well as the existence of other human beings. He would reason thus : I do not deny that I am having certain impressions which might be called memory impressions, but I deny that they are reproductions of certain experiences which have reality in a mysterious "past." There would be no available experience which could convey to him the conviction of past experiences, nor could he gain this from the available experiences by processes of strict logic (as was pointed out in section 1). The extreme sceptic could thus never get beyond the present-I-conscious, and we may properly call such a person the extreme solipsist. He is denying not only his own companions, but even his former self, and must indeed be very much alone.

The way in which knowledge by memory—this most certain of all fallible knowledge—is gained, is rather unlike any accredited scientific way. Because, what does one do to "recall" any past event? Suppose I want to know where I was at 9 o'clock yesterday night. I concentrate on this question and, somehow, there comes the answer in the form of a mental picture : I am seeing myself, mentally, sitting in my room. The answer to my question is not obtained by any intellectual process, but by the exertion of a psychical faculty or gift I possess. One looks into oneself and there the event is conjured up before one's mental eye, enacted once more, closely alike to what it has been. Now a clairvoyant is someone who, by concentrating on a certain

event, far away in space and time, or even in the future, sees this event enacted in a sort of vision.* If, then, we say that each of us is clairvoyant in his own past, this expresses well the function of memory. This name indeed is not an inapt one, since it expresses that the person in question has a vision of some kind. Further, clairvoyant power, like memory, is an ability of the mind which has nothing to do with intellectual development.

All that has been said of visual impressions applies to auditory impressions as well, and to those of smell, taste and touch. Clairvoyance usually is implied to include clear-hearing.

It has been customary to give the name clairvoyance to unusual psychical faculties. Since we are including the very common faculty of memory also, we mean by clairvoyance the ability in general of obtaining knowledge directly in the form of mental pictures which are more or less faithful reproductions of the actual experience or event. This includes memory as a special case.

3. *The existence of other persons concluded by analogy or induction.* *The principle of induction formulated.*

Once being able to follow my own past experiences by exercising the faculty of memory, and thus pursuing the events in my own mind for a certain length of time prior to the present moment, the next question is, how I conclude that other human beings exist.

Now the relation of myself with other human beings is largely, if not exclusively, determined by the occurrences in the outer world with which I am acquainted by means of the outer experiences, viz., the sensations. In this outer world

* The clairvoyant either exerts his powers without further aid, or after being brought into the proper state by gazing on some bright object like a crystal (probably some kind of auto-hypnosis). In hypnosis, the medium may become clairvoyant. Theosophists use the word in a wider sense than we have done, implying experience in worlds other than the physical. An old example of clairvoyance into the future was Delphi's oracle, where, it was claimed, the priestess of Apollo in a state of trance made predictions. How much of all that was or is claimed in this field would stand a severe test is a question we do not attempt to answer. However, it would seem that clairvoyance into the past inaccessible to memory is not so very much more weird than the normal faculty of memory. And, as to clairvoyance for far away events—this should not seem so inconceivable, even to a materialist, in our age of radio and television.

I recognise certain groups of experiences to which I refer as objects. As is set forth in detail in the next section, I am able to distinguish various parts of these objects, and by means of coincidences of parts of these objects with one another and with marks on measuring rods, I can make a study of their properties in three-dimensional space, likewise of the change of their shape with the time, eventually measured by a clock. Now the variable shape and appearance of one of those bodies, which I call my own body, is closely related to the events which take place in my mind : I can distinguish the sense-organs and notice that the eyes are bound up with my visual sensations, the ears with the sound I hear. Conversely, I have the ability to make certain parts of my body move at will ; I can conceive of certain words and make my body produce them in the outer world in the sense that I get them back through my sense of hearing. So by means of spoken words I can convey in the outer world what goes on in my mind. Now I recognise certain other bodies rather similar to it which behave in a similar manner. In particular, these bodies have sense-organs similar to my own. I hear them speak words which might fit a succession of mental events just as well as my own spoken words do. My conclusion is now this : since my mind is related to a body, and some other bodies have a similar appearance and behave in a similar manner, I conclude by analogy that these bodies are also related to minds capable of receiving impressions from the outer world as well as expressing themselves into it.* Acting on this assumption, I can enter into communication with them by means of speech, thus receiving information as to their intentions, opinions, etc., and co-operate with them for observations in the outer world.

This, of course, may not have been the actual reasoning before I have permitted myself to communicate with my fellowmen, graciously consenting to make use of the speech some of them taught me. But it is the reasoning I follow if ever I am seized with doubt as to their existence.

* To our knowledge, Jeffreys (*Nature* 141, 672, 1938) has been the first one to express this clearly, using the more preferable formulation in terms of induction, viz., generalisation from experience, to be considered presently.

It may be observed that the "close analogy" between other bodies and my own is a rather hazy argument. Other human beings are not entirely alike to myself in body or in mind, and to carry out the argument in a precise manner, one should allow for this difference, which indeed one only can, if one knows the law expressing the relation between mind and body. Knowing this law by the study of one's own mental occurrences and bodily phenomena, one might conclude that there are certain events or series of events in a body of any kind (not necessarily a human body) which can only take place when the body is related to a mind. Such a series of events would probably be the carrying out of a connected argument in speech by a human body after a problem proposed. More than that, one might be able to conclude certain (if not all) mental events taking place for a given series of events in a body. So one would conclude the existence of human and other minds related to bodies and obtain information concerning what is going on in these minds.* This, however, presupposes that the law which I can verify directly only for my own body is generally applicable, since I have applied it to other bodies than my own.

This now is the *principle of induction* which may be stated† as follows: when a law, that is a relation governing experiences, has been shown to hold in a limited region, we believe that we are justified in giving it an unlimited applicability.

There generally are a number of such laws fitting the available experiences equally well.‡ Of these, we use the simplest law for application according to the above principle, realising that this may only be an approximation, the accuracy§ of which is determined by the accuracy reached in the region tested.

* The reader will observe that the above considerations only presuppose certain relations between mental and bodily occurrences and that it is not necessary for them that the ones completely determine the others.

† The following formulation was suggested by but is not entirely the same as that of B. Russell (*The Analysis of Matter*, pp. 167, 175, 233, New York, Harcourt Brace & Co., 1927).

‡ This constitutes one of the main weaknesses of the principle of induction, since it means that it does not give information about reality in a unique manner. Yet, however imperfect this principle may be, mankind cannot do without it, unless it would develop certain at present unusual psychical faculties, e.g., in the knowledge concerning other persons telepathy might eventually take its place or supplement it.

§ This matter of accuracy which we have merely touched upon is considered more closely by Jeffreys, *loc. cit.*

In general, we may say that we believe in the most perfect law agreeing with experience. Indeed, a law holding generally is more perfect than one holding in a limited region (if the latter deserves the name "law" at all), and a simple law is more perfect than a complicated one.

4. *The outer world. Measurements of bodies in space and of time intervals.*

Any law governing experiences holds with a certain limited accuracy and under certain specified conditions. If the accuracy of observations is improved, a new law is often formulated. This does not mean that the old law is wrong, but only that it expresses the relation among experiences with less accuracy than the new law, so that it still can be applied wherever one is content with the accuracy it gives. This must be kept in mind in the following simple development, in which the approximation of euclidean geometry is used as expressing laws of measurements by means of approximately rigid bodies. We further wish it to be understood that in the following we are dealing with measurements carried out on the earth in a rather limited region on bodies which are moving with comparatively small velocities, so that considerations regarding the velocity of light do not enter.

The experiences of each individual in themselves are personal, and it is only in the relation among such experiences that the outer world is introduced as a means of formulating such relations.

The whole of the visual events experienced in one instant by a certain person may be termed his field of vision. Now each of us knows that it is possible for him to select in this field of vision (or touch, or smell) certain points as different from others which we shall call identifiable points. As examples we mention the sharp corner of a table, the mark on a measuring rod, and the crest of a wave, taken in the sense of personal experiences. Some of such points may be identified throughout a certain length of time, so that at any instant a certain point in the field of vision is considered to be identical with another point at any other instant. The corner of a table and the mark on a measuring rod are such persistent points, not so the crest of a wave.

If now one enters into communication with other persons (Section 3), one can soon agree that the fields of vision of the different persons have one persistent point in common, e.g., the top of my index finger, and by making this coincide with other persistent or identifiable points one rapidly sees that various persons agree on the whole as to the identifiable points in their fields of vision and the coincidences among them. In the same way one can indicate identifiable fields of a certain colour in a larger field of vision, and then various persons agree (within a certain accuracy) as to whether two fields seen side by side have the same or a different appearance in colour and intensity.

The agreement of different persons as to the identification of points and coincidences and of fields and their equality is the sense in which in the present treatment the outer world is impersonal. The outer world is conceived of, not as something outside persons, but merely as a scheme which expresses in what properties personal fields of vision are alike. In other words, the outer world stands for a law governing experiences. The word impersonal can be used for it in the sense of : the same for different persons.

But it does more than this. If I see that two points in the field of vision (e.g., the corner of a table and the end of a measuring rod) coincide, I can also make sure of the coincidence by feeling it with my fingers. The identifiable points and coincidences are not only the same (in the sense of equal) for different persons, but for different senses as well. Again, from this I do not need to conclude that the outer world exists outside myself, but merely that it stands for a law relating my visual and touch sensations.*

We express the "outer world law" as follows : the fields of experiences of various persons and various senses have the identifiable points and their coincidences in common, at any given instant. This law is part of our knowledge of reality which comes before physics or geometry, taking the latter as an observational science. It brings out the fact that these sciences deal with minds of living beings.

The coincidences of identifiable points are also the basis for measurements. When experimenting with our experi-

* "A law does not exist, but it holds." (J. Clay.)

ences in the outer world, we notice, first that there are certain groups of identifiable points called bodies. Then, that there is a certain class of bodies, called rigid bodies, among which coincidences are reproducible any time (e.g., a rigid cover which fits a rigid box to-day does so to-morrow). In other words, their (relative) shape is the same at various times. One may then define two lines (edges of bodies) as straight when they remain coincident for any position for which two of the (identifiable) points of each are coincident. (What is meant is the motion of a cover on a box about two tightly fitting hinges; the edges of cover and box remain fitting together if they are straight, and not otherwise.) Similarly, a plane surface is a surface (of a body) with which a straight line always coincides when it coincides with two of its points: if the ends of a straight ruler lie on a flat table, the whole ruler does. One can then make measuring rods on the straight edge of which one makes marks at equal distances, as one verifies by coincidences of two subsequent marks with two fixed marks on another ruler. In this way one can experimentally verify the axioms of euclidean geometry,* which, as is clear from the foregoing, are laws governing the coincidences of identifiable persistent points.

Again, the principle of induction states that when these axioms are verified in certain cases of coincidences, one believes them to be valid for the coincidences in the field of vision of any person at any time.

Once one is able to carry out space measurements the measurement of time intervals can follow from the observation of periodic motions: if one observes a system which periodically returns to the same state, the intervals of time between two such states are considered equal.† Examples are a swinging pendulum and the rotating earth. It is then found that various such clocks give consistent readings, and that when this one time scale is used the laws of nature assume a simple form.

Some such development as the foregoing may serve to pass from the individual experience to the approximate

* The logical possibility of non-euclidean geometries and their application to physics by Einstein show that geometry should be based on experiment.

† Since one cannot measure velocities as yet, one may choose a state with velocity zero, e.g., the point of largest deflection of a pendulum.

quantitative description of the events in space and time which form the basis of mechanics and physics and their laws. One may consider it as a first approximation to that description. A second approximation yields more accurate laws, e.g., those of relativity and wave-mechanics, which has different principles of measurements, but not so that they overthrow the first approximation. Likewise, one may include human bodies and the law relating body and mind (Cf. Section 3) in the scheme relating individual experiences, treating, e.g., visual sensations in terms of interaction of light with the eye, thus making physiology part of the scheme. This imposes limitations on the actual experiences an individual can have (viz., only those where a sense-organ and subsequent nerve track are affected), but it is still in approximate agreement with the simple scheme we have been discussing. Even if such a new scheme looks quite different from the simple scheme just treated, we can still go on using the old method as well, since we are interested in it merely as a *construction method*, and as such the old method still has its full value within the specified limits of accuracy.* Whatever the scheme, it is always a method of correlating experiences by means of laws which when verified in a limited region are given an unlimited applicability.

In the foregoing no mention has been made of the principle of causality in any form. We wish to point out that this is not an omission, but that the treatment in terms of laws and the principle of induction is sufficient in itself.

5. *The principle of induction as means of gaining knowledge of indirect experiences.*

In Section 3 we have seen that after having gained knowledge of the self and its own past by memory, the principle of induction enables us to obtain a certain knowledge concerning the existence and the experiences of other minds by

* The question at issue is one of certainty rather than of accuracy. Now increased accuracy generally means less certainty. Newtonian mechanics within the limits of accuracy it can claim and its limits of applicability (velocities much smaller than that of light and bodies much larger than atoms) is more certain than Einstein's theory of gravity or the wave mechanics, although, or rather, because, the latter two theories claim a greater accuracy. Of course, if these two theories would claim no greater accuracy than the Newtonian, they would be equally certain, but in this case the Newtonian theory would generally be preferred as a construction method because of its greater simplicity.

giving a general applicability to the relation between mind and body.

After having seen in the previous section how we get from personal experiences to the outer world as a scheme of correlating experiences, we can now indicate how our knowledge of the outer world* is greatly extended by applying the principle of induction. For instance, from the law of gravity one may predict in detail the motion of celestial bodies for a long time to come (e.g., solar eclipses) and obtain a detailed knowledge of the past motion at times long before any observations were carried out. This, however, only by applying the principle of induction, since the law of gravity which has been tested for a comparatively small period of time is assumed to hold for all times.

The principle of induction may be used for extending our knowledge, not only throughout the time, but more generally over the whole range of applicability the formulation of the law permits, in particular throughout space. Thus Maxwell's equations representing the law governing the electric and magnetic fields, if tested on the earth, are applied for any portion of space ; in particular the linear propagation of light and the Doppler effect (that is the relation between the velocity of the source of light and its change in wavelength) are used for determining the direction in which a star is situated and its radial velocity. An astronomical method of distance determination which has been shown to be valid for our own Milky Way System up to a few thousands of light-years, is also applied beyond this, and even to other galaxies millions of light-years away. When it is shown on the earth that a substance is characterised by its line spectrum, the same is held to be valid for the sun and the fixed stars, and thus their composition deter-

* According to Berkeley this knowledge and its extension only has meaning in so far as it affects the minds of living beings and should be taken in this sense. At this stage we may remark that laws of nature govern experiences of the outer world in a very roundabout way, the formulation being made by auxiliary quantities like E and H , the electric and magnetic fields, or Einstein's gravity tensor. So the question arises : can we, when using the principle of induction, give the laws an unlimited range of application ? Does this have any meaning in regard to the experiences of living beings which we should only be dealing with according to Berkeley ? The answer is this. Go on and give the laws an unlimited applicability. If this does not affect the experiences of living beings it does not matter, and if it does affect them, one certainly is justified. So one does not need to be squeamish about it.

mined. Thus the principle of induction provides an extremely powerful means of extending the domain of our knowledge.

The above examples have all been taken from the science of astronomy, where the extrapolation of laws, particularly throughout space, goes very far. Similarly, in geology the known laws are extended over enormous periods of time in virtue of the principle of induction.

6. *The two fundamental beliefs : (a) belief in the reliability of memory, (b) the principle of induction. Partial tests.*

We have seen in Section 2 that each of us obtains information concerning indirect experiences in his own past by exercising the faculty of memory. Now if I recall an event I experienced yesterday, e.g., of myself going to town for dinner, I obtain a certain mental picture of myself going along the street. This mental picture as such is a direct experience, and if I compare it with other present experiences of myself, using the rules of strict logic, I obtain infallible knowledge. But this is not what I am doing when using it as a memory impression, because in that case I believe that this impression of the present moment represents more or less truly what I experienced yesterday. In other words, I believe it to be a more or less faithful reproduction of yesterday's actual experience. This belief does not give me infallible knowledge ; if I am sceptically inclined, I might, e.g., admit the possibility that I am only imagining it, and we all know that such cases actually occur.

The exercise of the faculty of memory rests, therefore, on the following fundamental belief :

I believe that certain direct experiences (which I, therefore, have at the present moment), called memory impressions, are more or less faithful reproductions of indirect experiences of my own past. This may briefly be called the *belief in the reliability of memory*.

Fortunately, this belief by itself may be submitted to a partial test, e.g., I see a certain object, say, a yellow straw hat with a green band. I close my eyes and, after a while, during which I may be thinking of other things, I recall it. I wait a little time and recall it again. Now while I recall it the second time, I can also recall that I recalled it the first

time. This little experiment, which the reader can actually carry out on any conspicuous object, shows that memory can check itself: we get a mental picture by recalling an object and *the same* mental picture by recalling it with a previous recollection; or: there is agreement between the recollection and the recollection of the recollection. This shows also that the whole of our recollections is not an arbitrary chaos of experiences; even if we should be mad, there is method in our madness. The extreme sceptic cannot deny this correlation consisting in the approximate equality of certain experiences, but he refuses to assert our belief that it is brought about because we are dealing with reproductions of actual events. This hypothesis of ours may be sufficient for explaining this correlation, but we have not shown it to be necessary and therefore it still contains an element of belief.

We shall now consider the *second fundamental belief* which was already formulated in Section 3 as the *principle of induction*: "We believe in the general applicability of the simplest law that has been shown to hold in a limited region." That this principle does not give infallible knowledge is even more clear than in the case of memory. Even the existence of other persons, which according to Section 3 is the result of its application, may be doubted, if not all the time, certainly under certain circumstances of which the dream is a classical example. In the dream, I appear to be associating with persons who, on subsequent awakening, I know were not actually present; nevertheless, at the moment of dreaming I often believe in their actual existence. Conversely, it is conceivable that in waking, life situations occur which are on the face of it so unlikely that the hypothesis that I am dreaming seems the more likely one and the persons I am dealing with therefore not actually present.

It may be seen from this that it is quite proper to state the principle of induction as a belief.*

* In this matter Hume's famous treatise: *Enquiry Concerning Human Understanding*, is fundamental.

The doubts expressed by Hume concern in particular the principle of causality. If it is true that this principle has held in the past, what guarantee have we that it holds in the future? Likewise, if bread has been known to nourish me, why should different bread on a future occasion nourish me also?

He also has explicitly stated that this result cannot be obtained by an application of strict logic, since he points out that we are not dealing with a tautology.

It is to be regretted, however, that Hume has endeavoured to give a solution of this doubt as a result of habit. This truly enough might explain our belief, but never justify it.

Since for the discovery of all of our laws memory has been made use of at some stage or another, it is clear that the principle of induction as belief can never be tested by itself, but always in combination with the other belief in the reliability of memory. Let us take as a first example the law expressing the relations between my mind and my body, tested completely by means of my own direct experiences and my own memory. According to the principle of induction I believe myself to be justified in applying this law to normal human bodies in waking conditions. Now this is a belief which can be submitted to a partial test. I would soon be cured of my belief if the other human bodies behaved in an arbitrary manner, but they behave so as to give a partial confirmation of this belief. If I hear a human body say: "I just heard three blasts on a whistle," whereas I recall having just heard them myself, this is explained by the hypothesis that it is related to a mind having the ability to receive a sensation from the outer world as well as expressing its thoughts into it by speech. This hypothesis, however, is not necessarily the only one, since I might, e.g., be imagining or dreaming it, and therefore the test is only a partial one.

Another example. I have a written record by myself that at such and such a date I was in Paris. I also recall the event. This is not merely a check of memory by a written record, but rather a combined check of memory and principle of induction, because from the fact that I never saw a record change, I conclude, by the principle of induction, that records never change, whether I look at them or not.

After the sun has set, I conclude from the law of conservation of matter, to which the principle of induction has given a general applicability, that it must still be there as a source of light intercepted by the earth. This conclusion is confirmed by the phases of the moon, using the law of rectilinear propagation of light made general by the principle of induction. Memory comes in, because I should recall that, before, I have seen the sun.

In the three cases mentioned there is a correlation unexplained if we do not make use of the combination "memory and principle of induction." Yet a sceptic might doubt if this be the only possible explanation of the correla-

tion. In every case the test of the combination of the two beliefs is therefore only partial, and after a favourable test an element of belief still remains.

7. *Can the belief in the reliability of memory be reduced to one more plausible? Belief (c) in the persistence of impressions.*

One of the main points we have intended to bring out is that the belief in one's own memory is at least as strong as the belief called the "principle of induction." Modern tendency has perhaps been to look askance at the use of psychical powers, and memory being such a one, we may have a lurking feeling that the belief in its use might perhaps be reduced to a more plausible one.

One argument might run like this. It is likely that psychical processes are in a close relation to brain processes and that memory impressions can be recalled because certain states in the brain are conserved. Is not this belief in the conservation of brain states a more plausible one than the belief in the use of memory? This question may be answered as follows: Let us first be clear about this point, that it is not the question what principles come out most beautifully in the system of reality after it has been built up, but rather this: when submitting all of our knowledge to an extreme doubt, what beliefs resist this doubt most effectually? Now I can more easily doubt the existence of other persons than the reality of my own past; my memory will still stand out, even when my fellow beings are pure imaginings (Cf. Section 2). I have never seen my own brain, much less verified its connection with my own memory, and whatever information I have of the connection between brain and memory certainly must have been obtained from the brains and memories of other persons than my own, even if I had personally carried out the investigations. But since the belief in my own memory is stronger than my belief in the existence of other persons, it is also stronger than my belief in the relation between memory and brain. I think that any one would reason like this, including those who have made the experiments in question. Any one, however, who believes more strongly in his present neighbour than in his own past is free to think otherwise.*

* The case of double or multiple personality (Morton Prince, *The Unconscious*, Macmillan).

The second argument might be this : It appears that the present such as we experience directly is not confined to a single moment, but to a small time interval in which a few elements are recognised as coming in succession, called the specious present.* To be aware of it is a rather difficult feat of introspection, at least the writer of these pages finds it so ; its duration is no more than a few seconds. Now, if the specious present were long enough, say, two minutes, one might perhaps follow an event and its subsequent process of remembering, so that for this two-minute interval one would not have to believe that the memory impression would be a more or less true reproduction of the event, but one would actually know it. Then this relation between memory impression and actual event having been verified for the two-minute interval, the principle of induction would justify its use for the whole past. Thus the belief in the reliability of memory would be the result of the belief in induction and the latter might be substituted for the former.

Whether there are many persons having a long enough specious present to do this remains to be seen, but even granting it, it seems that this would put the two beliefs on an equal footing, since we may just as well say that the principle of induction is tested by memory as that memory is tested by the principle of induction.

But there is yet another objection. In the specious present, coming events gradually rise in intensity, receding events gradually fade off. So we can only get the other moment by a process of dimming and strengthening. But this shows that the specious present does not give the *actual* experiences at different moments of a time interval, since these would have to be touched up. The situation is rather so (Cf. James) that the specious present is one moment, but that the succeeding events in our minds have duration and thus overlap in the moment. But then we are, with the specious present, just as far as with memory, since we have to believe that events in the present moment have been persisting for some time from past moments, in other words,

* W. James, *Principles of Psychology* (Macmillan), Vol. 1, Chapter XV. "All the notes of the bar of a song seem to the listener to be contained in the present." (E. R. Clay.)

are dimmed or strengthened reproductions of events in the near past and the near future. Thus we come to a *third belief*: the belief in the persistence of impressions. It may be remarked that this belief is also needed for thinking. If our thoughts did not have a certain persistence, we could not follow their chain, since old and new thought have to be together. If there were no persistence, memory, to be sure, could call up an old thought to be compared with a new thought, but while it did so, the new thought would be gone.

We see, therefore, that, far from ridding us of a belief, the specious present has provided us with another one which is indispensable.

In the above we have only wished to bring out the importance of the specious present for the question at issue, not touching upon the many questions it raises.

Summary.

The problem at issue was: how is knowledge beyond one's own present consciousness obtained?

To treat this problem, we have first analysed the procedure by which each of us, starting from the available direct experiences of the present-I-conscious, obtains information and knowledge concerning the indirect experiences beyond the present-I-conscious. We have seen that these procedures are of two different kinds:

(a) the exercise of a certain clairvoyant psychical faculty called memory.

(b) the discovery of certain laws (correlations of experiences) which, though tested for a limited material, are given an unlimited applicability.

Procedure (a) naturally gives us information regarding our own past, and procedure (b) regarding other persons and their experiences, among other things, as has been shown.

It was then argued that the knowledge or information concerning indirect experiences gained by these two procedures is not infallible. It rests on the following two fundamental beliefs:

(a) that to memory impressions correspond certain indirect experiences in the past,

(b) that the laws govern direct as well as indirect experi-

ences, the latter being obtained by assuming an unlimited applicability of the law.

The latter belief is the principle of induction. These two beliefs are necessary for applying the above two procedures. Besides, there is, strictly speaking, a third fundamental belief, viz., that impressions have a certain persistence over a short interval of time (Section 7).

Often the combination of the two fundamental beliefs, or even one single belief (in case (a)), leads, for a given set of direct experiences, to the same indirect experience in two or more logically independent ways. This constitutes a partial test of their correctness, which is very much needed when a new region of reality is explored. Even then the reality of the indirect experience is not proved, only the belief in it strengthened. Any indirect experience remains based in part on belief, and its reality may be doubted in any case. In other words, anything one conceives of outside one's own momentary consciousness is hypothetical. Thus the knowledge that other human beings exist besides myself and that I have existed in the past is in principle of the same character as a hypothesis of physics.

It therefore goes without saying that the hypothetical character of metaphysical speculations constitutes no objection in itself. Certainly metaphysics is entitled to a construction of reality which it can make by the principles discussed above and base on direct experiences of any nature.

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IX. GODS

By J. WISDOM

1. *The existence of God is not an experimental issue in the way it was.* An atheist or agnostic might say to a theist "You still think there are spirits in the trees, nymphs in the streams, a God of the world." He might say this because he noticed the theist in time of drought pray for rain and make a sacrifice and in the morning look for rain. But disagreement about whether there are gods is now less of this experimental or betting sort than it used to be. This is due in part, if not wholly, to our better knowledge of why things happen as they do.

It is true that even in these days it is seldom that one who believes in God has no hopes or fears which an atheist has not. Few believers now expect prayer to still the waves, but some think it makes a difference to people and not merely in ways the atheist would admit. Of course with people, as opposed to waves and machines, one never knows what they won't do next, so that expecting prayer to make a difference to them is not so definite a thing as believing in its mechanical efficacy. Still, just as primitive people pray in a business-like way for rain so some people still pray for others with a real feeling of doing something to help. However, in spite of this persistence of an experimental element in some theistic belief, it remains true that Elijah's method on Mount Carmel of settling the matter of what god or gods exist would be far less appropriate to-day than it was then.

2. *Belief in gods is not merely a matter of expectation of a world to come.* Someone may say "The fact that a theist no more than an atheist expects prayer to bring down fire from heaven or cure the sick does not mean that there is no difference between them as to the facts, it does not mean

that the theist has no expectations different from the atheist's. For very often those who believe in God believe in another world and believe that God is there and that we shall go to that world when we die."

This is true, but I do not want to consider here expectations as to what one will see and feel after death nor what sort of reasons these logically unique expectations could have. So I want to consider those theists who do not believe in a future life, or rather, I want to consider the differences between atheists and theists in so far as these differences are not a matter of belief in a future life.

3. *What are these differences? And is it that theists are superstitious or that atheists are blind?* A child may wish to sit a while with his father and he may, when he has done what his father dislikes, fear punishment and feel distress at causing vexation, and while his father is alive he may feel sure of help when danger threatens and feel that there is sympathy for him when disaster has come. When his father is dead he will no longer expect punishment or help. Maybe for a moment an old fear will come or a cry for help escape him but he will at once remember that this is no good now. He may feel that his father is no more until perhaps someone says to him that his father is still alive though he lives now in another world and one so far away that there is no hope of seeing him or hearing his voice again. The child may be told that nevertheless his father can see him and hear all he says. When he has been told this the child will still fear no punishment nor expect any sign of his father, but now, even more than he did when his father was alive, he will feel that his father sees him all the time and will dread distressing him and when he has done something wrong he will feel separated from his father until he has felt sorry for what he has done. Maybe when he himself comes to die he will be like a man who expects to find a friend in the strange country where he is going. But even when this is so, it is by no means all of what makes the difference between a child who believes that his father lives still in another world and one who does not.

Likewise one who believes in God may face death differ-

ently from one who does not, but there is other difference between them beside this. This other difference may still be described as belief in another world, only this belief is not a matter of expecting one thing rather than another here or hereafter, it is not a matter of a world to come but of a world that now is, though beyond our senses.

We are at once reminded of those other unseen worlds which some philosophers "believe in" and others "deny," while non-philosophers unconsciously "accept" them by using them as models with which to "get the hang of" the patterns in the flux of experience. We recall the timeless entities whose changeless connexions we seek to represent in symbols, and the values which stand firm* amidst our flickering satisfaction and remorse, and the physical things which, though not beyond the corruption of moth and rust, are yet more permanent than the shadows they throw upon the screen before our minds. We recall, too, our talk of souls and of what lies in their depths and is manifested to us partially and intermittently in our own feelings and the behaviour of others. The hypothesis of mind, of other human minds and of animal minds, is reasonable because it explains for each of us why certain things behave so cunningly all by themselves unlike even the most ingenious machines. Is the hypothesis of minds in flowers and trees reasonable for like reasons? Is the hypothesis of a world mind reasonable for like reasons—someone who adjusts the blossom to the bees, someone whose presence may at times be felt—in a garden in high summer, in the hills when clouds are gathering, but not, perhaps, in a cholera epidemic?

4. *The question "Is belief in gods reasonable?" has more than one source.* It is clear now that in order to grasp fully the logic of belief in divine minds we need to examine the logic of belief in animal and human minds. But we cannot do that here and so for the purposes of this discussion about divine minds let us acknowledge the reasonableness of our belief in human minds without troubling ourselves about its logic. The question of the reasonableness of belief in divine

* In another world, Dr. Joad says in the *New Statesman* recently.

minds then becomes a matter of whether there are facts in nature which support claims about divine minds in the way facts in nature support our claims about human minds.

In this way we resolve the force behind the problem of the existence of gods into two components, one metaphysical and the same which prompts the question "Is there *ever any* behaviour which gives reason to believe in *any* sort of mind?" and one which finds expression in "Are there other mind-patterns in nature beside the human and animal patterns which we can all easily detect, and are these other mind-patterns super-human?"

Such over-determination of a question syndrome is common. Thus, the puzzling questions "Do dogs think?", "Do animals feel?" are partly metaphysical puzzles and partly scientific questions. They are not purely metaphysical; for the reports of scientists about the poor performances of cats in cages and old ladies' stories about the remarkable performances of their pets are not irrelevant. But nor are these questions purely scientific; for the stories never settle them and therefore they have other sources. One other source is the metaphysical source we have already noticed, namely, the difficulty about getting behind an animal's behaviour to its mind, whether it is a non-human animal or a human one.

But there's a third component in the force behind these questions, these disputes have a third source, and it is one which is important in the dispute which finds expression in the words "I believe in God," "I do not." This source comes out well if we consider the question "Do flowers feel?" Like the questions about dogs and animals this question about flowers comes partly from the difficulty we sometimes feel over inference from *any* behaviour to thought or feeling and partly from ignorance as to what behaviour is to be found. But these questions, as opposed to a like question about human beings, come also from hesitation as to whether the behaviour in question is *enough* mind-like, that is, is it enough similar to or superior to human behaviour to be called "mind-proving?" Likewise, even when we are

satisfied that human behaviour shows mind and even when we have learned whatever mind-suggesting things there are in nature which are not explained by human and animal minds, we may still ask "But are these things sufficiently striking to be called a mind-pattern? Can we fairly call them manifestations of a divine being?"

"The question," someone may say, "has then become merely a matter of the application of a name. And 'What's in a name?'"

5. *But the line between a question of fact and a question or decision as to the application of a name is not so simple as this way of putting things suggests.* The question "What's in a name?" is engaging because we are inclined to answer both "Nothing" and "Very much." And this "Very much" has more than one source. We might have tried to comfort Heloise by saying "It isn't that Abelard no longer loves you, for this man isn't Abelard"; we might have said to poor Mr. Tebrick in Mr. Garnet's *Lady into Fox* "But this is no longer Silvia." But if Mr. Tebrick replied "Ah, but it is!" this might come not at all from observing facts about the fox which we had not observed, but from noticing facts about the fox which we had missed, although we had in a sense observed all that Mr. Tebrick had observed. It is possible to have before one's eyes all the items of a pattern and still to miss the pattern. Consider the following conversation:

'And I think Kay and I are pretty happy. We've always been happy.'

Bill lifted up his glass and put it down without drinking.

'Would you mind saying that again?' he asked.

'I don't see what's so queer about it. Taken all in all, Kay and I have really been happy.'

'All right' Bill said gently, 'Just tell me how you and Kay have been happy.'

Bill had a way of being amused by things which I could not understand.

'It's a little hard to explain,' I said. 'It's like taking a lot of numbers that don't look alike and that don't mean anything until you add them all together.'

I stopped, because I hadn't meant to talk to him about Kay and me.

'Go ahead,' Bill said. 'What about the numbers.' And he began to smile.

'I don't know why you think it's so funny,' I said. 'All the things that two people do together, two people like Kay and me, add up to something. There are the kids and the house and the dog and all the people we have known and all the times we've been out to dinner. Of course, Kay and I do quarrel sometimes but when you add it all together, all of it isn't as bad as the parts of it seem. I mean, maybe that's all there is to anybody's life.'

Bill poured himself another drink. He seemed about to say something and checked himself. He kept looking at me."*

Or again, suppose two people are speaking of two characters in a story which both have read† or of two friends which both have known, and one says "Really she hated him," and the other says "She didn't, she loved him." Then the first may have noticed what the other has not although he knows no incident in the lives of the people they are talking about which the other doesn't know too and the second speaker may say "She didn't, she loved him" because he hasn't noticed what the first noticed, although he can remember every incident the first can remember. But then again he may say "She didn't, she loved him" not because he hasn't noticed the patterns in time which the first has noticed but because though he has noticed them he doesn't feel he still needs to emphasize them with 'Really she hated him.' The line between using a name because of how we feel and because of what we have noticed isn't sharp. "A difference as to the facts," "a discovery," "a revelation," these phrases cover many things. Discoveries have been made not only by Christopher Columbus and Pasteur, but also by Tolstoy and Dostoiefsky and Freud. Things are revealed to us not only by the scientists with microscopes but also by the poets, the prophets and the painters. What

* *H. M. Pulham, Esq.*, p. 320, by John P. Marquand.

† e.g., Havelock Ellis's autobiography.

is so isn't merely a matter of "the facts." For sometimes when there is agreement as to the facts there is still argument as to whether defendant did or did not "exercise reasonable care," was or was not "negligent."

And though we shall need to emphasize how much "There is a God" evinces an attitude to the familiar* we shall find in the end that it also evinces some recognition of patterns in time easily missed and that, therefore, difference as to there being any gods is in part a difference as to what is so and therefore as to the facts, though not in the simple ways which first occurred to us.

6. *Let us now approach these same points by a different road.*

6.1 *How it is that an explanatory hypothesis, such as the existence of God, may start by being experimental and gradually become something quite different can be seen from the following story :*

Two people return to their long neglected garden and find among the weeds a few of the old plants surprisingly vigorous. One says to the other "It must be that a gardener has been coming and doing something about these plants." Upon enquiry they find that no neighbour has ever seen anyone at work in their garden. The first man says to the other "He must have worked while people slept." The other says "No, someone would have heard him and besides, anybody who cared about the plants would have kept down these weeds." The first man says "Look at the way these are arranged. There is purpose and a feeling for beauty here. I believe that someone comes, someone invisible to mortal eyes. I believe that the more carefully we look the more we shall find confirmation of this." They examine the garden ever so carefully and sometimes they come on new things suggesting that a gardener comes and sometimes they come on new things suggesting the contrary and even that a malicious person has been at work. Besides examining the garden carefully they also study what happens to gardens left without attention. Each learns all the other learns about this and about the garden. Consequently, when after all this,

* *Persuasive Definitions*, *Mind*, July, 1938, by Charles Leslie Stevenson, should be read here. It is very good.

one says " I still believe a gardener comes " while the other says " I don't " their different words now reflect no difference as to what they have found in the garden, no difference as to what they would find in the garden if they looked further and no difference about how fast untended gardens fall into disorder. At this stage, in this context, the gardener hypothesis has ceased to be experimental, the difference between one who accepts and one who rejects it is now not a matter of the one expecting something the other does not expect. What is the difference between them ? The one says " A gardener comes unseen and unheard. He is manifested only in his works with which we are all familiar," the other says " There is no gardener " and with this difference in what they say about the gardener goes a difference in how they feel towards the garden, in spite of the fact that neither expects anything of it which the other does not expect.

But is this the whole difference between them—that the one calls the garden by one name and feels one way towards it, while the other calls it by another name and feels in another way towards it ? And if this what the difference has become then is it any longer appropriate to ask " Which is right ? " or " Which is reasonable ? "

And yet surely such questions *are* appropriate when one person says to another " You still think the world's a garden and not a wilderness, and that the gardener has not forsaken it " or " You still think there are nymphs of the streams, a presence in the hills, a spirit of the world." Perhaps when a man sings " God's in his heaven " we need not take this as more than an expression of how he feels. But when Bishop Gore or Dr. Joad write about belief in God and young men read them in order to settle their religious doubts the impression is not simply that of persons choosing exclamations with which to face nature and the " changes and chances of this mortal life." The disputants speak as if they are concerned with a matter of scientific fact, or of trans-sensual, trans-scientific and metaphysical fact, but still of fact and still a matter about which reasons for and against may be offered, although no scientific reasons in the sense

of field surveys for fossils or experiments on delinquents are to the point.

6.2. *Now can an interjection have a logic?* Can the manifestation of an attitude in the utterance of a word, in the application of a name, have a logic? When all the facts are known how can there still be a question of fact? How can there still be a question? Surely as Hume says “. . . after every circumstance, every relation is known, the understanding has no further room to operate?”*

6.3. When the madness of these questions leaves us for a moment *we can all easily recollect disputes which though they cannot be settled by experiment are yet disputes in which one party may be right and the other wrong* and in which both parties may offer reasons and the one better reasons than the other. *This may happen in pure and applied mathematics and logic.* Two accountants or two engineers provided with the same data may reach different results and this difference is resolved not by collecting further data but by going over the calculations again. Such differences indeed share with differences as to what will win a race, the honour of being among the most “setttable” disputes in the language.

6.4. *But it won't do to describe the theistic issue as one settlable by such calculation,* or as one about what can be deduced in this *vertical* fashion from the facts we know. No doubt dispute about God has sometimes, perhaps especially in mediæval times, been carried on in this fashion. But nowadays it is not and we must look for some other analogy, some other case in which a dispute is settled but not by experiment.

6.5. *In courts of law* it sometimes happens that opposing counsel are agreed as to the facts and are not trying to settle a question of further fact, are not trying to settle whether the man who admittedly had quarrelled with the deceased did or did not murder him, but are concerned with whether Mr. A who admittedly handed his long-trusted clerk signed blank cheques did or did not exercise reasonable care, whether a

* Hume. *An Enquiry concerning the Principles of Morals*. Appendix I.

ledger is or is not a document,* whether a certain body was or was not a public authority.

In such cases we notice that the process of argument is not a *chain* of demonstrative reasoning. It is a presenting and re-presenting of those features of the case which *severally co-operate* in favour of the conclusion, in favour of saying what the reasoner wishes said, in favour of calling the situation by the name by which he wishes to call it. The reasons are like the legs of a chair, not the links of a chain. Consequently although the discussion is *a priori* and the steps are not a matter of experience, the procedure resembles scientific argument in that the reasoning is not *vertically* extensive but *horizontally* extensive—it is a matter of the cumulative effect of several independent premises, not of the repeated transformation of one or two. And because the premises are severally inconclusive the process of deciding the issue becomes a matter of weighing the cumulative effect of one group of severally inconclusive items against the cumulative effect of another group of severally inconclusive items, and thus lends itself to description in terms of conflicting “probabilities.” This encourages the feeling that the issue is one of fact—that it is a matter of guessing from the premises at a further fact, at what is to come. But this is a muddle. *The dispute does not cease to be a priori because it is a matter of the cumulative effect of severally inconclusive premises.* The logic of the dispute is not that of a chain of deductive reasoning as in a mathematic calculation. But nor is it a matter of collecting from several inconclusive items of information an expectation as to something further, as when a doctor from a patient’s symptoms guesses at what is wrong, or a detective from many clues guesses the criminal. It has its own sort of logic and its own sort of end—the solution of

* *The Times*, March 2, 1945. Also in *The Times* of June, 13, 1945, contrast the case of *Hannah v. Peel* with that of the cruiser cut in two by a liner. In the latter case there is not agreement as to the facts. See also the excellent articles by Dr. Glanville L. Williams in the *Law Quarterly Review*, *Language and the Law*, April and January, 1945, and *The Doctrine of Repugnancy*, October, 1943, January, 1944 and April, 1944. The author, having set out how arbitrary are many legal decisions, needs now to set out how far from arbitrary they are—if his readers are ready for the next phase in the dialectic process.

the question at issue is a decision, a ruling by the judge. But it is not an arbitrary decision though the rational connexions are neither quite like those in vertical deductions nor like those in inductions in which from many signs we guess at what is to come ; and though the decision manifests itself in the application of a name it is no more merely the application of a name than is the pinning on of a medal merely the pinning on of a bit of metal. Whether a lion with stripes is a tiger or a lion is, if you like, merely a matter of the application of a name. Whether Mr. So and so of whose conduct we have so complete a record did or did not exercise reasonable care is not merely a matter of the application of a name or, if we choose to say it is, then we must remember that with this name a game is lost and won and a game with very heavy stakes. With the judges choice of a name for the facts goes an attitude, and the declaration, the ruling, is an exclamation evincing that attitude. But *it is an exclamation which not only has a purpose but also has a logic*, a logic surprisingly like that of "futile," "deplorable," "graceful," "grand," "divine."

6.6. *Suppose two people are looking at a picture or natural scene.* One says "Excellent" or "Beautiful" or "Divine"; the other says "I don't see it." He means he doesn't see the beauty. And this reminds us of how we felt the theist accuse the atheist of blindness and the atheist accuse the theist of seeing what isn't there. And yet surely each sees what the other sees. It isn't that one can see part of the picture which the other can't see. So the difference is in a sense not one as to the facts. And so it cannot be removed by the one disputant discovering to the other what so far he hasn't seen. It isn't that the one sees the picture in a different light and so, as we might say, sees a different picture. Consequently the difference between them cannot be resolved by putting the picture in a different light. And yet surely this is just what can be done in such a case—not by moving the picture but by talk perhaps. To settle a dispute as to whether a piece of music is good or better than another we listen again, with a picture we look again. Someone

perhaps points to emphasize certain features and we see it in a different light. Shall we call this "field work" and "the last of observation" or shall we call it "reviewing the premises" and "the beginning of deduction (horizontal)"?

If in spite of all this if we choose to say that a difference as to whether a thing is beautiful is not a factual difference we must be careful to remember that there is a procedure for settling these differences and that this consists not only in reasoning and redescription as in the legal case, but also in a more literal re-setting-before with re-looking or re-listening.

6.7. *And if we say as we did at the beginning that when a difference as to the existence of a God is not one as to future happenings then it is not experimental and therefore not as to the facts, we must not forthwith assume that there is no right and wrong about it, no rationality or irrationality, no appropriateness or inappropriateness, no procedure which tends to settle it, nor even that this procedure is in no sense a discovery of new facts.* After all even in science this is not so. Our two gardeners even when they had reached the stage when neither expected any experimental result which the other did not, might yet have continued the dispute, each presenting and re-presenting the features of the garden favouring his hypothesis, that is, fitting his model for describing the accepted fact; each emphasizing the pattern he wishes to emphasize. True, in science, there is seldom or never a pure instance of this sort of dispute, for nearly always with difference of hypothesis goes some difference of expectation as to the facts. But scientists argue about rival hypotheses with a vigour which is not exactly proportioned to difference in expectations of experimental results.

The difference as to whether a God exists involves our feelings more than most scientific disputes and in this respect is more like a difference as to whether there is beauty in a thing.

7. *The Connecting Technique.* Let us consider again the technique used in revealing or proving beauty, in removing a blindness, in inducing an attitude which is lacking, in reducing a reaction that is inappropriate. Besides running

over in a special way the features of the picture, tracing the rhythms, making sure that this and that are not only seen but noticed, and their relation to each other—besides all this—there are other things we can do to justify our attitude and alter that of the man who cannot see. For features of the picture may be brought out by setting beside it other pictures ; just as the merits of an argument may be brought out, proved, by setting beside it other arguments, in which striking but irrelevant features of the original are changed and relevant features emphasized ; just as the merits and demerits of a line of action may be brought out by setting beside it other actions. To use Susan Stebbing's example : Nathan brought out for David certain features of what David had done in the matter of Uriah the Hittite by telling him a story about two sheep owners. This is the kind of thing we very often do when someone is "inconsistent" or unreasonable. This is what we do in referring to other cases in law. The paths we need to trace from other cases to the case in question are often numerous and difficult to detect and the person with whom we are discussing the matter may well draw attention to connexions which, while not incompatible with those we have tried to emphasize, are of an opposite inclination. A may have noticed in B subtle and hidden likenesses to an angel and reveal these to C, while C has noticed in B subtle and hidden likenesses to a devil which he reveals to A.

Imagine that a man picks up some flowers that lie half withered on a table and gently puts them in water. Another man says to him "You believe flowers feel." He says this although he knows that the man who helps the flowers doesn't expect anything of them which he himself doesn't expect ; for he himself expects the flowers to be "refreshed" and to be easily hurt, injured, I mean, by rough handling, while the man who puts them in water does not expect them to whisper "Thank you." The Sceptic says "You believe flowers feel" because something about the way the other man lifts the flowers and puts them in water suggests an attitude to the flowers which he feels inappropriate although

perhaps he would not feel it inappropriate to butterflies. He feels that this attitude to flowers is somewhat crazy *just as it is sometimes felt that a lover's attitude is somewhat crazy even when this is not a matter of his having false hopes about how the person he is in love with will act.* It is often said in such cases that reasoning is useless. But the very person who says this feels that the lover's attitude is crazy, is inappropriate like some dreads and hatreds, such as some horrors of enclosed places. And often one who says "It is useless to reason" proceeds at once to reason with the lover, nor is this reasoning always quite without effect. We may draw the lover's attention to certain things done by her he is in love with and trace for him a path to these from things done by others at other times* which have disgusted and infuriated him. And by this means we may weaken his admiration and confidence, make him feel it unjustified and arouse his suspicion and contempt and make him feel our suspicion and contempt reasonable. It is possible, of course, that he has already notice the analogies, the connexions, we point out and that he has accepted them—that is, he has not denied them nor passed them off. He has recognised them and they have altered his attitude, altered his love but he still loves. We then feel that perhaps it is we who are blind and cannot see what he can see.

8. *Connecting and Disconnecting.* But before we confess ourselves thus inadequate there are other fires his admiration must pass through. For when a man has an attitude which it seems to us he should not have or lacks one which it seems to us he should have then, not only do we suspect that he is not influenced by connexions which we feel should influence him and draw his attention to these, but also we suspect he is influenced by connexions which should not influence him and draw his attention to these. It may, for a moment, seem strange that we should draw his attention to connexions which we feel should not influence him, and which, since they do influence him, he has in a sense already

* Thus, like the scientist, the critic is concerned to show up the irrelevance of time and space.

noticed. But we do—such is our confidence in “the light of reason.”

Sometimes the power of these connexions comes mainly from a man's mismanagement of the language he is using. This is what happens in the Monte Carlo fallacy, where by mismanaging the laws of chance a man passes from noticing that a certain colour or number has not turned up for a long while to an improper confidence that now it soon will turn up. In such cases our showing up of the false connexions is a process we call “explaining a fallacy in reasoning.” To remove fallacies in reasoning we urge a man to call a spade a spade, ask him what he means by “the State” and having pointed out ambiguities and vaguenesses ask him to reconsider the steps in his argument.

10. *Unspoken Connexions.* Usually, however, *wrongheadedness or wrongheartedness in a situation, blindness to what is there or seeing what is not, does not arise merely from mismanagement of language but is more due to connexions which are not mishandled in language, for the reason that they are not put into language at all.* And often these misconnexions too, weaken in the light of reason, if only we can guess where they lie and turn it on them. In so far as these connexions are not presented in language the process of removing their power is not a process of correcting the mismanagement of language. But it is still akin to such a process ; for though it is not a process of setting out fairly what has been set out unfairly, it is a process of setting out fairly what has not been set out at all. And we must remember that the line between connexions ill-presented or half-presented in language and connexions operative but not presented in language, or only hinted at, is not a sharp one.

Whether or not we call the process of showing up these connexions “reasoning to remove bad unconscious reasoning” or not, it is certain that in order to settle in ourselves what weight we shall attach to someone's confidence or attitude we not only ask him for his reasons but also look for unconscious reasons both good and bad ; that is, for reasons which he can't put into words, isn't explicitly aware of, is hardly aware of, isn't aware of at all—perhaps it's long

experience which he *doesn't* recall which lets him know a squall is coming, perhaps it's old experience which he *can't* recall which makes the cake in the tea mean so much and makes Odette so fascinating.*

I am well aware of the distinction between the question "What reasons are there for the belief that S is P?" and the question "What are the sources of beliefs that S is P?" There are cases where investigation of the rationality of a claim which certain persons make is done with very little enquiry into why they say what they do, into the causes of their beliefs. This is so when we have very definite ideas about what is really logically relevant to their claim and what is not. Offered a mathematical theorem we ask for the proof; offered the generalization that parental discord causes crime we ask for the correlation co-efficients. But even in this last case, if we fancy that only the figures are reasons we underestimate the complexity of the logic of our conclusion; and yet it is difficult to describe the other features of the evidence which have weight and there is apt to be disagreement about the weight they should have. In criticizing other conclusions and especially conclusions which are largely the expression of an attitude, we have not only to ascertain what reasons there are for them but also to decide what things are reasons and how much. This latter process of sifting reasons from causes is part of the critical process for every belief, but in some spheres it has been done pretty fully already. In these spheres we don't need to examine the actual processes to belief and distil from them a logic. But in other spheres this remains to be done. Even in science or on the stock exchange or in ordinary life we sometimes hesitate to condemn a belief or a hunch† merely because those who believe it cannot offer the sort of reasons we had hoped for. And now suppose Miss Gertrude Stein finds excellent the work of a new artist while

* Proust. *Swan's Way*, Vol. 1, p. 58, Vol. 2. Phoenix Edition.

† Here I think of Mr. Staces' interesting reflexions in *Mind*, January, 1945, *The Problems of Unreasoned Beliefs*.

we see nothing in it. We nervously recall, perhaps, how pictures by Picasso which Miss Stein admired and others rejected, later came to be admired by many who gave attention to them, and we wonder whether the case is not a new instance of her perspicacity and our blindness. But if, upon giving all our attention to the work in question, we still do not respond to it, and we notice that the subject matter of the new pictures is perhaps birds in wild places and learn that Miss Stein is a bird-watcher, then we begin to trouble ourselves less about her admiration.

It must not be forgotten that our attempt to show up misconnexions in Miss Stein may have an opposite result and reveal to us connexions we had missed. Thinking to remove the spell exercised upon his patient by the old stories of the Greeks the psychoanalyst may himself fall under that spell and find in them what his patient has found and, incidentally, what made the Greeks tell those tales.

11. *Now what happens, what should happen, when we enquire in this way into the reasonableness, the propriety of belief in gods ?* The answer is : A double and opposite-phased change. Wordsworth writes :

“ And 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 thoughts,
 And rolls through all things ”*

* Tintern Abbey.

We most of us know this feeling. But is it well placed like the feeling that here is first-rate work, which we sometimes rightly have even before we have full grasped the picture we are looking at or the book we are reading? Or is it misplaced like the feeling in a house that has long been empty that someone secretly lives there still. Wordsworth's

feeling is the feeling that the world is haunted, that something watches in the hills and manages the stars. The child feels that the stone tripped him when he stumbled, that the bough struck him when it flew back in his face. He has to learn that the wind isn't buffeting him, that there is not a devil in it, that he was wrong, that his attitude was inappropriate. And as he learns that the wind wasn't hindering him so he also learns it wasn't helping him. But we know how, though he learns, his attitude lingers. It is plain that Wordsworth's feeling is of this family.

Belief in gods, it is true, is often very different from belief that stones are spiteful, the sun kindly. For the gods appear in human form and from the waves and control these things and by so doing reward and punish us. But varied as are the stories of the gods they have a family likeness and we have only to recall them to feel sure of the other main sources which co-operate with animism to produce them.

What are the stories of the gods? What are our feelings when we believe in God? They are feelings of awe before power, dread of the thunderbolts of Zeus, confidence in the everlasting arms, unease beneath the all-seeing eye. They are feelings of guilt and inescapable vengeance, of smothered hate and of a security we can hardly do without. We have only to remind ourselves of these feelings and the stories of the gods and goddesses and heroes in which these feelings find expression, to be reminded of how we felt as children to our parents and the big people of our childhood. Writing of a first telephone call from his grandmother Proust says: " it was rather that this isolation of the voice was like a symbol, a presentation, a direct consequence of another isolation, that of my grandmother, separated for the first time in my life, from myself. The orders or prohibitions which she addressed to me at every moment in the ordinary cause of my life, the tedium of obedience or the fire of rebellion which neutralized the affection that I felt for her were at this moment eliminated. 'Granny!' I cried to her but I had beside me only that voice, a phantom, as unpalpable as that which would come to

revisit me when my grandmother was dead. 'Speak to me!' but then it happened that, left more solitary still, I ceased to catch the sound of her voice. My grandmother could no longer hear me I continued to call her, sounding the empty night, in which I felt that her appeals also must be straying. I was shaken by the same anguish which, in the distant past, I had felt once before, one day when, a little child, in a crowd, I had lost her."

Giorgio de Chirico, writing of Courbet, says: "The word yesterday envelopes us with its yearning echo, just as, on waking, when the sense of time and the logic of things remain a while confused, the memory of a happy hour we spent the day before may sometimes linger reverberating within us. At times we think of Courbet and his work as we do of our own father's youth."

When a man's father fails him by death or weakness how much he needs another father, one in the heavens with whom is "no variableness nor shadow of turning."

We understood Mr. Kenneth Graham when he wrote of the Golden Age we feel we have lived in under the Olympians. Freud says: "The ordinary man cannot imagine this Providence in any other form but that of a greatly exalted father, for only such a one could understand the needs of the sons of men, or be softened by their prayers and be placated by the signs of their remorse. The whole thing is so patently infantile, so incongruous with reality" "So incongruous with reality"! It cannot be denied.

But here a new aspect of the matter may strike us.* For the very facts which make us feel that now we can recognize systems of superhuman, sub-human, elusive, beings for what they are—the persistent projections of infantile phantasies—include facts which make these systems less fantastic. What are these facts? They are patterns in human reactions which are well described by saying that we are as if there were hidden within us powers, persons, not ourselves

* This different aspect of the matter and the connexion between God, the heavenly Father and "the good father" of the psycho-analysts was put into my head by some remarks of Dr. Susan Isaacs.

and stronger than ourselves. That this is so may perhaps be said to have been common knowledge yielded by ordinary observation of people,* but we did not know the degree in which this is so until recent study of extraordinary cases in extraordinary conditions had revealed it. I refer, of course, to the study of multiple personalities and the wider studies of psycho-analysts. Even when the results of this work are reported to us that is not the same as tracing the patterns in the details of the cases on which the results are based ; and even that is not the same as taking part in the studies oneself. One thing not sufficiently realized is that some of the things shut within us are not bad but good.

Now the gods, good and evil and mixed, have always been mysterious powers outside us rather than within. But they have also been within. It is not a modern theory but an old saying that in each of us a devil sleeps. Eve said : " The serpent beguiled me." Helen says to Menelaus :

" And yet how strange it is !

I ask not thee ; I ask my own sad thought,

What was there in my heart, that I forgot

My home and land and all I loved, to fly

With a strange man ? Surely it was not I,

But Cypris there ! "†

Elijah found that God was not in the wind, nor in the thunder, but in a still small voice. The kingdom of Heaven is within us, Christ insisted, though usually about the size of

* Consider Tolstoy and Dostoievsky—I do not mean, of course, that their observation was ordinary.

† Euripides. *The Trojan Women*, Gilbert Murray's Translation. Roger Hinks in *Myth and Allegory in Ancient Art* writes (p. 108) : " Personifications made their appearance very early in Greek poetry It is out of the question to call these terrible beings ' abstractions ' They are real daemons to be worshipped and propitiated These beings we observe correspond to states of mind. The experience of man teaches him that from time to time his composure is invaded and overturned by some power from outside : panic, intoxication, sexual desire."

" What use to shoot off guns at unicorns ?

Where one horn's hit another fierce horn grows.

These beasts are fabulous, and none were born

Of woman who could lay a fable low."—*The Glass*

Tower. Nicholas Moore, p. 100.

a grain of mustard seed, and he prayed that we should become one with the Father in Heaven.

New knowledge made it necessary either to give up saying "The sun is sinking" or to give the words a new meaning. In many contexts we preferred to stick to the old words and give them a new meaning which was not entirely new but, on the contrary, *practically* the same as the old. The Greeks did not speak of the dangers of repressing instincts but they did speak of the dangers of thwarting Dionysos, of neglecting Cypris for Diana, of forgetting Poseidon for Athena. We have eaten of the fruit of a garden we can't forget though we were never there, a garden we still look for though we can never find it. Maybe we look for too simple a likeness to what we dreamed. Maybe we are not as free as we fancy from the old idea that Heaven is a happy hunting ground, or a city with streets of gold. Lately Mr. Aldous Huxley has recommended our seeking not somewhere beyond the sky or late in time but a timeless state not made of the stuff of this world, which he rejects, picking it into worthless pieces. But this sounds to me still too much a looking for another place, not indeed one filled with sweets but instead so empty that some of us would rather remain in the Lamb or the Elephant, where, as we know, they stop whimpering with another bitter and so far from sneering at all things, hang pictures of winners at Kempton and stars of the 'nineties. Something good we have for each other is freed there, and in some degree and for a while the miasma of time is rolled back without obliging us to deny the present.

The artists who do most for us don't tell us only of fairy-lands. Proust, Manet, Breughel, even Botticelli and Vermeer show us reality. And yet they give us for a moment exhilaration without anxiety, peace without boredom. And those who, like Freud, work in a different way against that which too often comes over us and forces us into deadness or despair,* also deserve critical, patient and courageous attention. For they, too, work to release us from human bondage into human freedom.

* Matthew Arnold. *Summer Night*.

Many have tried to find ways of salvation. The reports they bring back are always incomplete and apt to mislead even when they are not in words but in music or paint. But they are by no means useless ; and not the worst of them are those which speak of oneness with God. But in so far as we become one with him he becomes one with us. St. John says he is in us as we love one another.

This love, I suppose, is not benevolence but something that comes of the oneness with one another of which Christ spoke.* Sometimes it momentarily gains strength.† Hate and the Devil do too. And what is oneness without otherness ?

* St. John xvi, 21.

† *The Harvesters* in *The Golden Age*, Kenneth Graham.

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 1937. Mrs. M. KNEALE, Lady Margaret Hall, Oxford.
 1945. Mrs. KNIGHT, c/o Women's Graduate Club, 12, Mill Lane, Cambridge.

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1923. T. M. KNOX, M.A., The University, St. Andrews.
 1944. Mrs. R. I. KYDD, 26, Warnborough Road, Oxford.
1922. B. M. LAING, M.A., The University, Sheffield.
 1916. Prof. J. LAIRD, M.A., *Vice-President*, Powis Lodge, Old Aberdeen.
 1945. P. T. LANDSBERG, B.Sc., 104, Avenue Road, W.3.
 1911. Prof. GEO. H. LANGLEY, *Treasurer*, M.A., Senchal, Shepherd's Hill, Merstham, Surrey.
 1936. J. LAUWERYS, 103, Slough Lane, Kingsbury, N.W.9.
 1945. Dr. ERICH LEDERMANN, 18, Dawson Place, W.2.
 1924. Miss M. J. LEVETT, M.A., The University, Glasgow.
 1936. Prof. H. LEVY, Imperial College of Science, S. Kensington, S.W.
 1938. H. D. LEWIS, University College of North Wales, Bangor.
 1937. Dr. CASIMIR LEWY, Trinity College, Cambridge.
 1908. Lord LINDSAY, M.A., LL.D., *Vice-President*, Master of Balliol, Oxford.
 1936. Miss ALINE LION, D.Phil., Chestnut Hill, Keswick, Cumb.
 1938. CHUNG SU LO, West China Union University, Chengtu, Szechwan, China.
 1920. Rev. A. A. LUCE, D.D., Ryslaw, Bushy Park Road, Dublin.
 1936. Miss COTTER LUDBY
1924. Prof. A. MACBEATH, The Queen's University, Belfast.
 1939. D. J. McCRACKEN, M.A., Ph.D.
 1932. Miss M. MACDONALD, 19, de Montfort Street, Leicester.
 1916. Prof. C. A. MACE, M.A., D.Litt., Vale Farm, Hollesley, Woodbridge, Suffolk.
 1935. A. M. MACIVER, The University, Leeds.
 1925. Dr. IVY MACKENZIE, M.A., B.Sc., 10, Woodside Terrace, Glasgow.
 1921. J. C. McKERROW, M.B., 34, Cartwright Gardens, W.C.1.
 1932. JAMES McKIE, M.A., Brasenose College, Oxford.
 1945. D. R. MACKINNON, M.A., Keble College, Oxford.
 1939. W. G. MACLAGAN, Oriel College, Oxford.
 1924. Prof. JOHN MACMURRAY, M.A., The University, Edinburgh.
 1937. D. MACNABB, Pembroke College, Oxford.
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 1933. Mrs. C. MAUND, 49, Manor House, Marylebone Road, N.W.1.
 1940. Miss M. S. MELDRUM, University College of the South West, Exeter.
 1923. Prof. W. P. MONTAGUE, M.A., Ph.D., 27, West Ninth Street, New York 11, N.Y.
 1896. Prof. G. E. MOORE, Sc.D., LL.D., *Vice-President*, 86, Chesterton Road, Cambridge. (Honorary Member.)
 1923. C. R. MORRIS, M.A., Balliol College, Oxford.
 1930. D. J. MOXLEY, 15, Topsham Road, S.W.17.
 1928. C. C. A. MUNBO.
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 1923. THOMAS MATHESON NESS, M.D.,
 1944. T. L. NICHOLLS, 23, Park Drive, Harrow.

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1943. D. J. O'CONNOR, 3, Beverley Gardens, Barnes, S.W.13.
1939. P. H. PARTRIDGE, The Dept. of Philosophy, The University, Sydney, N.S.W.
1919. Prof. HERBERT J. PATON, *President*, M.A., 14, Merton Street, Oxford.
1926. R. L. PATTERSON, M.A., c/o J. G. Vollmer, 2009 Clark Building, Pittsburg, Pa., U.S.A.
1923. F. G. PEARCE, 12, Holroyd Road, Putney, S.W.15.
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1918. Rev. Prof. H. MAURICE RELTON, D.D., 6, Kingston House South, Ennismore Gardens, S.W.7.
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1945. Prof. R. ROBINSON, 5, Neve Quay, Wisbech, Cambs.
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1939. SATIS CHANDRA ROY, "Santikur," Shillong, Assam, India.
1896. BERTRAND RUSSELL, M.A., *Vice-President*, Trinity College, Cambridge.
1921. Prof. LEONARD J. RUSSELL, M.A., B.Sc., D.Phil., *Vice-President*, 304, Hagley Road, Edgbaston, Birmingham, 17.
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1924. Miss M. E. SANDBACH-MARSHALL, B.D.
1926. Miss R. L. SAW, Ph.D., B.A., 72, Grosvenor Avenue, Carshalton, Surrey.
1912. Prof. J. W. SCOTT, M.A., D. Phil., Windylaw, Lisvane, Cardiff.
1921. Miss ELISABETH SCOTT, M.A., Kenton Lodge Training College, Gosforth, Newcastle-on-Tyne.
1918. W. E. G. SEKUYI, M.A., Anibok Chambers, Cape Coast, Gold Coast, West Africa.
1945. PAUL SELIGMANN, The White House, Randolph Crescent, W.9.
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1938. F. TOMLIN, The British Institute, Baghdad, Iraq.
1945. Miss D. M. TULLOCH, M.A., The London School of Economics, Houghton Street, W.C.2.
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1890. Prof. CLEMENT C. J. WEBB, M.A., Old Rectory, Pitchcott, nr. Aylesbury.
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(November, 1945.)

