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PROCEEDINGS

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ARISTOTELIAN SOCIETY.

NEW SERIES.—VOL. XLIX

Containing the Papers read before the Society during the Seventieth Session, 1948-1949.

ERRATUM

Page 82, line 32, *for* "recognise" *read* "cannot recognise."

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PAPERS READ BEFORE THE SOCIETY, 1948-49.

Meeting of the Aristotelian Society at 21, Bedford Square, London, W.C.1, on November 8th, 1948, at 7.30 p.m.

I.—SOME IMPLICATIONS OF ANALYTICAL BEHAVIOURISM.

THE PRESIDENTIAL ADDRESS.

By C. A. MACE.

IN philosophical discussion it is well to avoid, if we can, the use of technical expressions, but for the purposes of the present occasion, one or two special terms may save much circumlocution. The chief of these is " analytical behaviourism."

Behaviourism in general is an attempt to deal with what to the scientist in general is a troublesome class of facts—those commonly described as " the facts of mental life." Common to all its forms, behaviourism offers an alternative to the widespread doctrine that the world contains two sorts of stuff—the stuff of which material things are made and the stuff of mind. According to this widespread doctrine, these two sorts of stuff are irreducibly different and are equal in status. Behaviourism, in all its forms, accords a superior scientific status to the facts of matter, and offers a systematic account of facts of mind in terms of the behaviour of material things. There are, however, several ways in which this may be done ; and we may distinguish three sorts of behaviourism : the metaphysical, the methodological and the analytical.

By the metaphysical behaviourists I mean those who admit that the two contrasted sorts of stuff are at least conceivable, but deny, however, that mind as so conceived is realized in fact. They deny, or appear to deny, that minds or consciousness exist. The methodological behaviourists concede rather more. They appear to admit not only that mind or consciousness is conceivable as irreducibly different from matter, but also that this conception is realized in fact. They take their stand on a principle of scientific method. A mind, or a state of consciousness, they say, may be a fact of interest and importance to a poet or, for that matter, to anyone who has one, but this interest is "merely emotional or aesthetic." "Mind" and "consciousness" are not amenable to systematic treatment by scientific method.

More radical, and of greater philosophical interest, is the variety of behaviourism which I am calling "analytic." To the analytical behaviourist the existence of mind or consciousness defined as irreducibly distinct from matter and its behaviour is not even conceivable in any positive terms. It enjoys, so to speak, the status of a prime number which is greater than 19 and less than 23 Statements about mind or consciousness just turn out to be, on analysis, statements about the behaviour of material things. Statements about "perceiving" turn out to be statements about "differential responses," statements about "liking" and "desiring" turn out to be statements about "abient" and "adient" responses, and so on for every kind of "experience" or "psychical phenomenon." This is the sort of doctrine, not metaphysical or methodological behaviourism, which I wish to discuss.

First, however, a word or two about "analysis."

This, again, is a technical or semi-technical term, and I must confess that I do not quite know how to define it. I can at best give some account of the way in which I wish to use it.

Analysis is a sort of elucidation. When we analyse an

expression we state more fully and in more detail what was previously said in a briefer way. In so doing, we draw attention to the components of what we analyse, to the relations between these components and often to their relations to other things. Connections with other things are often of greater interest and importance than the relations between the " components " of the thing. Thus, if the analysis of " *x* is an uncle " is " *x* is the brother of a father or mother," the elucidation draws attention to the fact that at least two or three persons are implicated in what might first appear to be a statement involving only one. Of course, this is a very trivial case and it might plausibly be suggested that no one could intelligently use the term " uncle " without full appreciation of all that is involved in this analysis. Such an analysis seems to tell us nothing that we did not know before, and it excludes no very possible error or misunderstanding. But in other cases an analysis of the same kind seems to be more informative and to offer information which might even be disputed. Thus, in a discussion of " perceiving " and " believing," we might be challenged to elucidate the meanings of these terms, and with this in view we might proceed as follows : " Perceiving " entails a percipient, a subject that perceives ; and it entails an object, that which is perceived. Likewise with " believing." Believing entails someone who is believing and something which is believed. Moreover, you cannot believe an object as you perceive a tree ; when you believe, you believe *that* something is the case. In fact, what happens when a belief occurs can always be stated more fully in the form : S believes that P is Q or that A has *r* to B. This is only a first step in an analysis, but it is from this only a very small step further to highly controversial statements, e.g., that belief entails the existence of a " psychological subject," of " objectives " or " propositions " or of " multiple relations " connecting a subject, terms and relations in a peculiar unity.

Certainly, too, a proposed analysis goes beyond the trivial in the case in which it is suggested that the analysis of a psychological proposition can be given in a statement about " behaviour " ; e.g., that the analysis of " A likes B " is of the form " A is disposed to seek B's company, to perform acts conducive to B's welfare, and to exhibit distress when harm befalls B." The analysis is apt to evoke the protest that something has been left out or that something has been put in. But any other analysis is equally controversial, and any other analysis—to be an analysis at all—will introduce a reference to components or connections which were not plainly present in the original statement. In fact, it is the exception rather than the rule for an analysis to exhibit the simplicity and self-evidence of the proposed analysis of " x is an uncle." Whether in using the term " analysis " in the way I have tried to illustrate I am indulging in technicality I find difficult to decide ; but this brief explanation is intended to offer some reassurance that in using it as I do, I have—to the best of my belief—no rabbits up my sleeve.

So to analytical behaviourism. It is, of course, difficult to present and defend any sort of behaviourism whatever without committing oneself to nonsense, but I am myself fairly well satisfied that behaviourism of the analytic type carefully stated, and stated with certain reservations, is a defensible position. I do not propose here to defend it, but rather to consider what, if true, would be its implications not only for psychology, but also for other semi-philosophical sciences. Something, however, must be said about the reservations.

A reasonable behaviourism of the analytic type is, I believe, defensible subject to the following conditions : First, the concept of behaviour must be extended to cover not only bodily acts, but also bodily states, bodily dispositions, bodily " states of readiness " to behave or to act in various ways. The point of this reservation may be seen from the objection which Broad rightly points out to one

sort of behaviouristic analysis of perception. It is clear that when I perceive in a single glance many of the contents of a room, there is no evidence that I am behaving (in any ordinary sense of the word) in regard to all the objects I perceive. It may, however, be said with some plausibility that in perceiving any object, I am in a " state of readiness " to behave in a way in which I should not be ready to behave if I did not perceive it. And this " adjustment " might be said to constitute the perception.[1] This extension of the word " behaviour " enables the behaviourist to deal with many psychological facts which otherwise might nonplus him.

Second, we must restrict the behaviouristic analysis to the analysis of so-called " mental acts " as distinct from the so-called " objects " or " contents " of those acts. So many behaviouristic arguments have come to grief in the attempt to deal with " mental images." To avoid the obvious absurdity of a behaviouristic analysis of what is imagined, the behaviourist is apt to take refuge in the scarcely less absurd endeavour to deny the fact of imagining itself. There is, however, another behaviouristic solution along entirely different lines. It may plausibly be argued that images do not exist not because we do not picture things to ourselves or dream, but because we do not need an *existent* picture to picture with. The dreamer exists and he dreams, but the dream does not " exist." The argument turns not on the nature of the dream, but upon the nature of dreaming and on the meaning of the word " exist."

This argument goes for " sense data " or " sensa " as well ; and in any case not even the toughest behaviourist who knows what he is saying would attempt to give a behaviourist analysis of the " sensum." His analysis can properly apply only to the " act " of sensing.

[1] The suggestion that what we perceive we are disposed to react to is one that would admit of empirical test by a reaction-time technique. And if we could establish that wherever we may be said to perceive something there is some verifiable *disposition* to react, it might prove a convenient convention to define perception by reference to this fact.

Third, the behaviouristic thesis must be stated in a manner consistent with the recognition of the fact that we can observe objects, acts and dispositions through more than one sense. Even physicists and chemists not only look, they also listen and smell in making their observations. In general, however, they seem to have adopted the convention that their final results must be presented in visual terms—so far, that is to say, as they have to be presented in sensory terms at all.

This convention is less convenient in psychology where observations are made through each of the modalities of sense, and of these the somatic and proprioceptive senses are especially informative. The emotions of other persons can be observed only through their overt behaviour ; one's own emotions are best observed through the felt inclinations and dispositions to behaviour presented in the main through the internal senses.[2]

Briefly stated, then, the sort of behaviourism which appears to me to be defensible is one that could be developed along the following lines :

The world in which we live and of which we are the human population is entirely a world of material things which are in the main the sort of things that they appear to be. These things may appear, of course, to be other than they really are. Lines appear to converge when they are really parallel. Distant mountains appear to be blue when they are really green. We sometimes persuade ourselves that we love our neighbours when, in fact, we dislike them. In general, we know how to correct mistaken beliefs and misleading appearances—through the study of the laws of perspective, through psycho-analysis, and through the theory of perception. Among the most fundamental of procedures is that of submitting the deliverance of one sense to the test of conformity with the deliverance of the others.

[2] We introspect a belief or an emotion by attending to the sensed disposition to say or do certain things—just as we introspect a cold by attending to the sensed disposition to snuffle or sneeze.

Psychology is essentially a biological science. It differs from other biological sciences through the use of the method of introspection. Introspection is a special case of the method of making use of the data of more than one sense. I observe that someone other than myself sees a thing, likes the look of it, and wishes to possess it, in the main by visually observing an extremely complex pattern of behaviour. I observe that I myself see it, that I like the look of it, and I desire to possess it by observing my own dispositions and inclinations. I observe these latter things by directing my attention to the felt tensions set up by these dispositions.

I am not here concerned with the details of the psychologist's programme, but only with the basic concepts which this programme requires. What I have described as " analytical behaviourism " is the thesis that the concepts of psychology are related to the concepts of biology in this way : psychology is concerned with dispositions to behaviour (as presented through the proprioceptive and organic senses) ; biology (including physiology) is concerned with the structure of the organism and the actual behaviour (as presented in the main to the exteroceptors) through which these dispositions are expressed. The distinction arises from the fact that the biologist observes only animals and men other than himself, whereas the psychologist can, in addition, be his own guinea-pig. Further, I am not at the moment, concerned to defend this position, but only to consider its implications, if defensible it be.

The implications which I propose to consider fall broadly under three heads : (i) implications for the general theory of mind ; (ii) implications for social philosophy and the social sciences ; and very briefly (iii) implications for the evaluative sciences and other cognate interests in life.

(i) In general, analytical behaviourism leaves the main theses of the classical psychologists unaffected in respect of factual content. Among the " classical psychologists " I include those who based their findings on " the method of

introspection," and who on this basis distinguished the mental act both from the psychological "Subject" who performs it and from the "object" or "content" upon which this act is directed.

Most behaviourists appear to hold themselves under the obligation to deny the reality or importance of any of these distinctions; but analytical behaviourism, which in essentials is more radical than any other form, leaves all this body of doctrine precisely as it stood before—except, of course, in respect of analysis.

This is what on general grounds might have reasonably been presumed. An analysis does not decide an issue of fact. One analysis may be inconsistent with another, it cannot show that a proposition is true or false, except, of course, when the proposition is itself one concerning an analysis.

The denial by some behaviourists of the distinction between external observation and introspection is not only a denial of a fact, it is also an internal inconsistency in the behaviourist position. If, for example, "X is perceiving a tree" becomes on analysis "X is reacting differentially to the presence of a tree," then "X is perceiving that he perceives a tree," becomes on analysis "X is reacting differentially to his differential reaction to the tree." So too, if "X is perceiving a tree" becomes on analysis "X is disposed to react differentially to a tree" then "X is perceiving that he perceives a tree" becomes on analysis "X is disposed to react differentially to his disposition to react differentially to a tree." In other words, the analytic behaviourist does not deny the fact of introspection; he gives a behaviouristic analysis of the introspective act. This applies with equal force to the distinctions which have been drawn in regard to the facts observed by the introspective act. By a curious irony, the inclination of behaviourists to deny the existence of the psychological Subject and its acts has left them only with the one component in the situation of which a behaviouristic account cannot with any plausibility be given.

Starting from the simple and obvious fact that what I see and like I often want to possess we plainly can distinguish the seeing, liking and wanting both from that which sees, likes and wants, and from what is seen, liked and wanted ; and it is difficult to understand why anyone should doubt the reality and importance of these distinctions. The difficulty for the behaviourist arises from the fact that that which sees, likes and wants cannot be quite immediately identified with the body as observed and described by an outside observer or an ordinary anatomist and from the fact that seeing, liking and wanting cannot be exhaustively described in terms of externally observable behaviour. But this difficulty disappears with the recognition that the subject, his acts and dispositions, can be presented by what Stout rather obscurely described as " internal perception." The " double-aspect " character of " mental phenomena " is perhaps their most interesting feature ; and it is misleading either to describe the externally observed aspect as merely " the expression " of what is observed by introspection or to describe the latter as merely " epiphenomenal " to the former. It is (roughly) as if we described thunder as the " expression " of lightning or lightning as " epiphenomenal " to thunder, or both as epiphenomenal to a certain kind of electrical disturbance.

So far, I have been in the main concerned with the negative aspect of the implications of analytical behaviour for general psychology. It eliminates neither the statements nor the problems regarding the psychological subject and his acts. In fact, one might almost say that so far as it eliminates problems at all, it eliminates all the problems except those pertaining to the subject, his acts and his dispositions. And this leads us to the positive aspect of these implications. In part these are obvious. Within the framework of analytical behaviourism psychological statements are " material-object statements," not statements about sense-data, experiences or sense contents, and the psychologist is throughout concerned only with things that

exist in the elementary sense in which existence entails being in a certain place at a certain time, and with things that happen at certain places at certain times.

Of course, the psychologist like the physicist may have philosophical interests. Both may be interested in defining with precision the nature of the steps by which they pass from their raw observational data to the scientific facts with which they are concerned. Suppose, for example that a physicist and a psychologist with the help of a professional philosopher are considering the situation in the Garden of Eden when Eve saw an apple and liked the look of it. The physicist would be especially interested in the part of the story which tells how you pass from what the philosopher might describe as a round red " sense datum " to a statement about a red Worcester Pearmain. The psychologist would be interested in the part of the story which tells how you or Eve might pass from certain other " sense-data " to statements about seeing an apple and liking the look of it. So far the two sorts of transition are of a similar kind. Suppose, however, that they had selected the example of Eve seeing a ghost, or an angel with a flaming sword. The physicist would then be disappointed in his expectations. The statements about the " sense-data " do not lead to a statement about any physical object which corresponds to the appearance of the angel in the way in which the real apple corresponds with the appearance of an apple. The psychologist is more fortunate. All the " sense data " involved lead to some or other statements about Eve, her acts and her dispositions, and all these statements will be " scientific " statements about a real person in a real world.

If all this could be sustained, the " technical advantages " to psychology would be immense. By the " technical advantages " I mean, of course, all those that contribute to affording it a well-defined place in the unified system of the sciences as a whole.

(ii) Among the " technical advantages " of behaviourism

not the least are those that accrue to the social sciences. Roughly speaking, psychology stands to the social sciences as physics stands to the other " natural " sciences ; and simplicity, precision and verifiability of psychological concepts contribute to simplicity, precision and verifiability in the concepts employed in the study of societies.

The possibility of a psychology of society (as distinct from the mere applications of individual psychology to social problems) would seem to rest upon two not unplausible propositions :

1. That the social group is a natural entity—as good a natural entity as the individual person—and that a group has properties which may be ascertained independently of the knowledge of corresponding properties of the individuals of which it is composed.

2. That some of these properties are of a psychological nature.

The two parts of the first proposition are little more than alternative ways of saying the same thing. To say that the Great Bear constellation is a natural entity is a way of saying that there are properties, such, for example, as the properties of dimension and shape which the Great Bear may be known to have independently of any knowledge of the corresponding properties of its component stars.

In regard to the relations which hold between the properties of complex wholes and the corresponding properties of the component parts, Herbert Spencer adduces an instructive example. Out of bricks with square angles, he observes, a bricklayer can build, even without mortar, a high rectilinear wall of some stability. A dockyard labourer piling spherical cannon balls can only build forms such as that of the pyramid or the wedge. Spencer draws the general conclusion that the character of an aggregate is determined by the character of the units.

But the general fact can be better stated in another way. There are many relations to be determined between the

characters of wholes and the characters of parts. Sometimes the character of a whole is clearly determined by the character of the parts. Sometimes, a change in the character of the whole appears to determine changes in the character of the parts. What in the present context is more important is that the characters in question are in fact independently and empirically ascertained, and causal relations only subsequently defined. This is especially important in the case of the psychological properties of groups. The apparently irrepressible tendencies of social philosophers perpetually to revive the doctrine of the " group mind " has some basis in reason and fact. It has a basis in the convenience that attaches to the use of psychological terms for the description of observed properties and actions of groups. Groups make decisions and these decisions express in varying degree the presence or absence of intelligence and foresight.

The problem is to attach a meaning—a verifiable meaning—to such statements, and one that makes clear both the similarities and the differences between the attribution of a mental characteristic to an individual and the attribution of this characteristic to a group. This is all but impossible to do within the framework of philosophical dualism, but becomes simple almost to the point of triviality within the framework of the behaviouristic analysis of mind.

Statements about the mental life of a group may be clear, informative and verifiable when the group has a constitution and acts in accordance with formal procedures. By reference to formal and constitutional procedures we can distinguish with comparative ease the acts of the group from the acts of each of the individuals of which the group is composed, and can make significant statements of the form : " The intelligence of the group was greater (or less) than the intelligence of its most (or least) intelligent member." It would not, in fact, be difficult to devise standardized tests of intelligence applicable to groups whereby such distinctions could be expressed in a quanti-

tative form. And what applies to the intelligence of groups applies in principle to its traits of personality or character.

In the same way, significance can be attached to the statement that a group, like an individual, has a conscious and an unconscious mind. But although there are many analogies between the minds of individuals and the minds of groups (as behaviouristically defined), we can never *argue* from these analogies. The corresponding characteristics of the individual and of the group must be independently ascertained, and their relations empirically determined. In some cases a psychological property is more readily determined in the individual, sometimes it is more readily determined in the group. Finding the property in one case may suggest its presence in the other but the suggestion may not always be realized in fact.[3]

It is perhaps within the field of social psychology that some advance may be recorded in the assimilation by science of the odd phenomena of psychical research. It is perhaps still reasonably possible to contest the facts alleged regarding telepathy and precognition, or at least to contest the interpretations placed upon the raw data collected in psychical research. But it is not reasonably possible to contest the scientific status of the claims presented.

Hypothesis without fact is empty, but fact without hypothesis is blind. Interpretation is the Achilles heel of psychical research ; and its most responsible exponents

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[3] The fact that individuals differ in intelligence may lead us to look for intelligence differences in groups and such differences may be found. The fact that individuals differ in sex does not provide a fruitful hypothesis for the study of differences in groups since the group belongs to the sort of organism which reproduces itself by other than sexual means.

The concept of the " unconcious mind " on the other hand has its simpler and most easily verified application in the case of the group. Many of the distinctive concepts of Freud's psychology consist in the application to the individual mind of mechanisms observed in the behaviour of groups, e.g., the concept of the " forum of consciousness," the concepts of the Censor and repression. Freud's psychology in fact might almost be described as a technical development of individual psychology on the analogy afforded by a simple non-technical and commonsense psychology of society.

would be the first to approve the need for exploring new lines of interpretation.

My suggestion is that a behaviouristic psychology is at least as good as any other as a point of departure in any such inquiry. I would, in fact, go rather further. Psychical research has, I think, much to gain by assembling its data within the framework of a naturalistic and positivistic methodology ; and it would be good for methodologists with a naturalistic and positivistic bias to test their principles against the alleged facts of psychical research.

The venture would not be entirely devoid of promise. Among the most suggestive of current hypotheses in this field is Whately Carrington's attempt to provide an interpretation of telepathic phenomena by generalizing the law of association. If the hypothesis works at all, there is no reason why it should not work as well if re-expressed in behaviouristic terms. Behaviourism in general has found it easy to assimilate the law of association, and might perhaps with equal ease assimilate the proposed extension of this law. The " collective unconscious " in behaviouristic terms becomes " the group mind," and the group mind becomes in effect a " behaving organism of a higher order." The problems of psychical research in other words become problems of a behaviouristic social psychology.

It is not, however, my purpose here to defend or even to develop any such hypothesis. I have, however, of set purpose concerned myself in this discussion with the more obscure and more suspect concepts of psychology and its allied studies. My intention has been to suggest that it is characteristic of what I have called analytical behaviourism to endeavour to explain not merely to " explain away."

(iii) In all that has gone before I have been concerned with the " technical " advantages of a behaviouristic theory of mind. But, it may be said, technical advantages are bought too dearly if they are bought at the expense of spiritual values. And true enough it is that materialistic philosophies, naturalistic philosophies and positivistic philo-

sophies have shown a certain lack of sympathy with, and perhaps a certain lack of insight into, the spiritual needs of man.

Speaking for myself alone, and speaking only in a temperamental way, I am prepared to admit that the most important truths about the world are those that have been only obscurely spoken by the poets, the prophets and the seers. Yet, if we look at the facts with entirely innocent eyes, uncorrupted by history, it becomes something of a mystery that a regard for spiritual values should be strongly associated with one rather than any other ontological theory, or with any particular suggestion rather than any other as to the *analysis* of a fact.

My suggestion is that, in this connection at least, facts and values are logically independent. If a thing is beautiful, then on any analysis its beauty will remain ; and if a mind can be good, then on a behaviouristic analysis as on any other it will continue to be good.

In a less *a priori* vein we might perhaps observe that there appears to be in the affairs of man a certain principle of conservation of values. When a value has somehow come to be attached to a given conception of fact and that conception is shown to be mistaken, the value quickly loses its adhesion and attaches itself elsewhere. It was, as we know, something of a shock when science first suggested that man had an ape-like origin, but the shock was quickly followed by aesthetic and moral adjustment. At first men argued " If we have come from the apes what poor things we are." But on second thoughts, they said, " If the apes produced us, how wonderful are the apes ! " So it would be, I think, if we all became behaviourists.

The conception of an immaterial substance has acquired through history intense emotional significance. If then we came to the conclusion that material things are the only things that exist, shock, to those who felt it, would be followed by emotional adjustment. " If matter is all there

is," they would say, " What wonderful stuff it is ! " And why not, indeed ? If material things can be literally beautiful, why should not the behaviour of material things, and dispositions to behaviour, be literally good ?

Meeting of the Aristotelian Society at 21, Bedford Square, London, W.C.1 on November 22nd, 1948, at 7.30 p.m.

II.—PHILOSOPHY AND SCIENTIFIC METHOD

By J. A. PASSMORE.

THE most puritanical of philosophers still allow themselves to talk about scientific method, although every now and then a scientist will sniff, audibly and impolitely, at their impertinence. That sniff one can safely ignore. Individual scientists have had interesting things to say about scientific method, but the ordinary scientist is as unsophisticated a methodologist as the ordinary artist is an aesthetician. In both cases, the lack of sophistication reveals itself in the same way, as a failure to distinguish between the special technical problems which the scientist and the artist confront in their daily work and the more general problem of a methodology, or an aesthetics, applicable beyond the narrow limits of a particular technique. Each science has its technique of observation: the manipulations of a microscope, or of a burette, the construction of a questionnaire—these are not matters on which the philosopher will normally be expert (just as he cannot advise on the mixing of colours, or the problems of orchestration); and to the scientist these are, quite naturally, the really interesting problems. Experiment is at once the most tractable and the most intractable part of his work; the most tractable, because his means lie open to his inspection and can be improved by intelligent practice, the most intractable, in the sense that he meets with constant and niggling technical set-backs. He is all the while conscious of himself as a technician (just as a painter is), in a sense in which he is

not conscious of himself as an imaginative being, a speculator. Experiment, technique is the clear part of science and art ; the sources of inspiration lie in obscurity, with about them an uncomfortable aura of mysticism or psychopathology. It is always tempting to deny the existence of what does not lend itself to being controlled. And, also, experiment is the scientist's social distinction ; it is that which makes him not as other men, that which distinguishes him from the "mere" (the "arm-chair") speculator. For reasons such as these, it is generally useless to seek from the scientist any coherent methodology ; either he will reply with a lecture on technique or else, if he inhabits the *demi-monde* in which those scientists dwell who like to talk about Education or Society, he will treat us to a discourse on antique philosophy. Granted all this, is the philosopher in any better position to talk about scientific method? Is he not, in most cases, hopelessly disqualified by the circumstances of his education, which so tenderly protects him from the slightest acquaintance with science of any sort or description? Morris Cohen, in his *Preface to Logic*, satirises the amiable professor, who, after a blameless life, sets out to write a "scientific method" which tells us how to find the cause of some disease of which the cause is already known. Can the philosopher, except the comparatively rare specimen who has been trained in science, hope to be anything more than such an incurably literary dilettante in the field of scientific method?

As a way of answering that question, we shall tackle another. When philosophers talk about scientific method, what exactly are they doing? How do they judge whether or not a particular theory of scientific method is a satisfactory one? This question can readily be answered by Bacon and Descartes, indeed by all those methodologists whom I shall call, commodiously if not unambiguously, by the name of "rationalists." The rationalist seeks a recipe for arriving at the truth. "By a method," writes Descartes, "I mean certain and simple rules, such that, if a man

observe them accurately, he shall never assume what is false as true, and will never spend his mental powers to no purpose " (*Regulae*, Rule IV). The rationalist is offended by the presence, in science, of any tincture of speculation. Speculation must be replaced by rational calculation or alternatively, for rationalism assumes a variety of forms, by pure pre-suppositionless observation.

The rationalist, indeed, tries to browbeat us with a dilemma (Descartes is again the classical, but by no means the only example) ; either, he says, we must be able to build up science by a self-guaranteeing method (the recipe) out of elements of knowledge which are simple and therefore knowable through-and-through (forms, sense-data, elements, simple ideas, axioms) or else—the morasses of a self-defeating scepticism. And the proof of the recipe is not in its eating (that would be the grossest empiricism) but in its rationality, so that the rationalist can rest secure in his comfortable *a priori* citadel, without having to test his method in the actual practice of science.

This sort of recipe-hunting has lost its former fashionableness ; there is certainly, now, a wider recognition of the important rôle which speculation plays in science, and the rationalist dilemma is no longer quite so terrifying. But it is often brandished with a sufficient air of confidence ; we shall do wrong to think that unmitigated rationalism is safely dead. We have seen it sufficiently vigorous, not so long ago, in the early days of logical positivism. Even though the emphasis appeared to shift from a recipe for arriving at the truth to a recipe for avoiding nonsense, the conception of " verification " on which the recipe depended was still that of old-fashioned rationalism ; to be verifiable was to be reducible to elementary constituents, and hence to be through-and-through knowable ; the recipe for avoiding nonsense depended upon a recipe for achieving certainty. And, of course, the rationalist's hostility to speculation was a dominant theme in the whole positivist project.

Thoroughly to provide reasons for rejecting all such recipes would involve, indeed, a critique of philosophical systems which are superficially very diverse, though all participating in this quest for certainty. I propose simply to assume that there is no recipe which will protect us from all risk of error, or even from all errors except those arising from the weakness of our memory. It has been made particularly clear by the philosophical controversies of recent years that if a proposition is " certain " in the sense in which the rationalist demands certainty, then it must be a tautology ; and science is not a set of tautologies. If we try to exclude from science every proposition whose truth is neither self-guaranteeing, nor guaranteed through its relationship to self-guaranteed truths, then at the same time as we make error impossible, so also we remove all possibility of discovery. The rationalist thinks of science, primarily, as a way of making himself safe ; it would be foolish to deny that this has been an important motive in scientific inquiry ; but complete safety is to be bought only at the cost of saying nothing at all. Reflections of this sort remove a considerable amount of the gilt from the methodological gingerbread. I have little doubt that when social scientists, for example, turn to the philosopher to supply them with a methodology, quite a few of them are seeking a recipe of the rationalist sort. Suppose we are honest, suppose we tell them that we neither possess, nor believe in the existence of, a philosopher's stone, suppose we admit that we have nothing to bring them but tears and sweat, what shall we reply when they ask us why we expect to be granted a hearing ?

One possible answer—and one that would be given by a great many of those who call themselves empiricists—is that we are busy working out a new, and very useful, logic called " the logic of induction " or, some would prefer to say, " the logic of confirmation." We could point to the logic books : Part I, deductive logic, Part II, inductive logic. " There," we might reply, " what you call ' scientific

method' we call 'inductive logic'—a perfectly respectable, and undeniably useful, subject, with books on it and articles in the learned journals, all telling you how to know when to accept a hypothesis." But if we have *really* abandoned the search for a recipe, this particular line of retreat is barred to us. "Inductive logic" is either the rationalist recipe all over again, in its Cartesian form, or else it is an attenuated, less rosily optimistic form of rationalism—a recipe for being reasonable, as distinct from a recipe for arriving at the truth.

In its first form it tries to "justify induction," *i.e.*, to show that when we appear to be speculating we aren't *really* speculating. The justification regularly takes the form of supplying additional premises, in the form of "postulates." And the point about these postulates is that if they were actually true, then with their help we could construct a normal deductive proof of our hypothesis; but since they are not true, we have no proof at all, and what is true would not enable us to construct a proof, but only a fallacious argument. Thus, if Nature were uniform, then we should know that whenever a thing has a certain property in one instance it has it in all instances, and then we could prove, in the normal way, that if P is Q on a certain occasion (or for a certain time) it will always be Q. But, in fact, Nature is not uniform: all we are entitled to say is that universal propositions are *sometimes* true, from which it would be fallacious to conclude in the case of any given universal proposition that it is true. Similarly, with postulates of limited variability, if we know that P must be either Q or R or S, then we can construct deductive arguments of the form "P is either Q or R or S, but is not Q and not R, and hence must be S" or of the form "P is either Q or R or S, but these are all T, therefore P is T," but it is just because we cannot construct these arguments in every case that we are forced to speculate. If the postulate were true there would never have been any "problem of induction"; and merely to say that these arguments can *sometimes* be con-

structed gives us not the least help in deciding those cases where we can't construct them.

This sort of " inductive logic " characteristically tries to persuade us that fallacy isn't fallacy, that although a single undistributed middle is fatal to an argument, a whole set of them is as good as a proof ; so that " X is a man and is mortal, therefore all men are mortal " is fallacious, but " X, Y and Z are men and are mortal, therefore all men are mortal " is a perfectly good piece of inductive reasoning. Even the inductive logician feels that there is in such cases " a leap in the dark " ; he looks about for recipes which will make the world safe for speculators, turns up this postulate or that, this or that " inductive method." In each case with the same difficulty : if the postulate is true (or if the method really works) the argument is deductive, but the postulate never is true, the method never does work, and so the leap in the dark remains. The inductive logician tries to persuade us that the dark isn't quite as dark as it was, the leap as far. But when it comes to the point, we do not notice the difference.

Of course, there are rules for leaping in the dark, but these aren't in the least like logical rules. They never tell us that if we make secure the ground on which we are standing and then jump in a particular way, we are sure of a safe landing ; they only tell us that if we jump in the proper way, we have a better chance of avoiding certain well-known snags. If we have an accident, our friends won't say, " Well, the silly fool took no precautions," they'll say, " He was reasonably careful, but he had bad luck." In short, these rules are counsels of prudence.

Counsels of prudence are common enough in science. The chemist advises his apprentice to fold his filter-paper in a certain way ; if the experiment goes wrong, and it turns out that the filtrate has seeped over the edges of the filter-paper, this is carelessness, a failure to take reasonable precautions. These are technical counsels ; no one expects this sort of advice from the philosopher. And then there is

the sententiousness with which the chemistry teacher fills in an odd five minutes: "Always check your results," "Make your observations carefully." This is like telling us to be careful how we jump, when what we really want to know is whether to fall forwards or backwards. The Polonius variety of philosopher sometimes goes in for this sort of thing, and perhaps he will also advocate honesty and temperance, but I am going to presume that moralising is not our concern. We only begin to feel at home when we hear advice like the following: "Test your hypothesis carefully in a number of instances selected in a particular way from a number of different fields." This is certainly the sort of thing which we expect from methodologists. And one can see why; it is not specifically technical advice, it isn't merely sententious, and it obviously has something to do with logic.

The trouble is that philosophers try to turn such counsels of prudence into logical rules. They are not content to say: "If you don't want to be always going wrong, in a way which will certainly bring upon you accusations of being careless, or of unreasonableness, test your hypothesis in such-and-such a manner." They want to say, rather: "It is illogical to accept a hypothesis unless it has been tested carefully." And, of course, it isn't illogical, it is merely imprudent or, at most, "unscientific." And this latter is a sociological judgment, not a part of logic.

Of course, many methodologists will grant that it is not illogical to accept untested hypotheses, but they want to make more precise, to fix in a formula, the notion of "reasonable certainty," or scientific prudence. Hume made it clear that the ordinary propositions of science lie in a realm between tautology and superstition; but his critics think of him as a "sceptic" because he provides no formulæ for determining the relative reasonableness of the propositions of science and because, also, he lays such stress on the imagination as a factor determining which beliefs we will in fact accept, however "scientific" we think

ourselves. To the rationalist these are highly disconcerting conclusions. Just as rationalistic moral theorists try to produce rules for reasonable conduct in personal relationships, so these rationalistic methodologists set out to provide rules by which we can decide whether it is reasonable to accept or reject a hypothesis. One can go further in describing reasonableness (in science) than I have so far done ; one could say, perhaps, that it is unreasonable to accept a hypothesis unless (*a*) it is intrinsically probable (*i.e.*, unless it is like other hypotheses which have worked well in the past), (*b*) it has been confirmed in a large number of instances, (*c*) these instances are chosen from a number of different fields, (*d*) these fields include those where exceptions are most likely to exist. Already, at this level of elaboration, one begins to have doubts, but, still, this is a plausible enough description of the precautions a modern scientist will have to take, in certain countries, at least, if he is not to run the risk of being rebuked for carelessness or credulity. But it is a different matter to try to work out a formula in which " due weight " is given to these different factors.

A comparison with Bentham's " hedonistic calculus " has now a certain interest. Bentham tried to formalise general counsels of prudence like : " A bird in the hand is worth two in the bush." The formalisation will not do, because the individual factors (certainty, intensity, etc.) are neither themselves calculable nor capable of being conjoined into a product. There is no way of saying just how big the bird in the bush needs to be before it is worth while taking the risk of abandoning the bird in the hand, or just what difference it ought to make to our calculations if the bird is a yard away rather than a hundred yards away, or is a bird of which we are particularly fond. Similarly, I should say, with rules for reasonableness in science ; there is no way of measuring " intrinsic probability " in itself and no way of finding the product of intrinsic probability, the reliability of the experimenters, the number of the experiments, the range of their distribution and the attractiveness

of the hypothesis as a means of opening up new ground. One cannot say exactly how often a hypothesis must be confirmed before it is reasonable to accept it ; nor even that it becomes more reasonable to accept it as the confirmations increase in number ; and also one cannot say how many extra confirmations are needed to compensate for low intrinsic probability. Take these points in order. At what point did it become reasonable to believe that all men are mortal ? Is it more reasonable to believe that all flies are mortal than that all elephants are mortal ? How many extra confirmations of the hypothesis that " all white cats with blue eyes are deaf " are needed to compensate for its intrinsic improbability ? (For the fact, that is, that we know of no other case in which colour affects hearing.) It won't do to rely upon one of these factors alone as a test of reasonableness—that would be like saying that it is always reasonable to pursue the maximum profit, however remote it may be in time and however uncertain—and yet at the same time there is no way of bringing the factors together in a single formula.

How do I know that it won't do to rely upon one of the factors alone ? Well, it's hard to be sure, because the notion of " reasonableness " is itself a vague and shifting one. There are those who think that " it's better to be sure than sorry," there are those who believe that " he who hesitates is lost." One man's " reasonable precautions " are another man's *folie de doute.* Our analysis is satisfactory if it indicates, roughly, the sort of demand which is commonly made upon an investigator by his fellow scientists, with reservations about the period, the country, the practical urgency, and the stage of development in the science. But we shall have to remember that different scientists make rather different demands, according as they emphasise enterprise rather than prudence. We're sure to go wrong if we put our conclusions in a mathematically precise form.

Of course, we can prescribe : we might recommend, for example, that no hypothesis be accepted unless it is con-

firmed *n* times, we might say that this is a better counsel of prudence than the ones commonly employed by scientists, where " better " would presumably mean " safer." I don't think that there is such a simple formula, or that any formula will work which does not involve a complication of considerations which cannot be brought to a single market, but, of course, only detailed investigation could settle the matter. Even if the formula did give us greater safety, it is worth noting, we might not recommend it, if we found that its adoption would hinder the making of fresh discoveries.

Suppose we reject the view that the methodologist can produce a formula by the help of which we can decide whether it is " reasonable " to accept a hypothesis, either in the sense of " reasonable " in which it means " safe " or in the sense in which it means " in accordance with the practice of science." What is there left for the methodologist to do ? Well, there is the description of science, the study of its character in distinction from thinking in general, in distinction, for example, from superstition. We can talk, without falling into mere sententiousness, about science's emphasis upon observation and experiment, about its use of hypotheses, about its attention to exceptions, about the general methods by which it tests its hypotheses. What we have called counsels of prudence can also be formulated as descriptions of scientific procedures. This is a sort of sociology, but it demands a knowledge of logic, not a special " inductive " logic, however, but ordinary deductive logic. Thus, to develop a theory of explanation, for example, is to talk about the way in which explanations are used in science, but this involves us in describing the logical relations between the explanation and the explicandum. There is no formula for finding explanations, no recipe, but there are tests of a " good explanation." Similarly, to talk about " confirmation " is, amongst other things, to describe certain types of deductive reasoning. Of course, on some philosophical assumptions the whole dis-

cussion becomes a logical one. If, for example, an explanation always has a different logical character from an explicandum (the explanation is a necessary proposition whereas the explicandum is contingent) or if a hypothesis is always distinguishable by its logical form (its universality) from a confirmation, then expressions like " hypothesis," " confirmation," " explanation," are all of them logical expressions and what I have called the sociology of science becomes a branch of logic. But it seems to me perfectly clear that there is no *formal* way of deciding whether a proposition is an explanation, or a law, or a hypothesis, or a confirmation. To make distinctions of this sort is not merely to talk logic, but also to describe what goes on in science. We are not distinguishing different kinds of proposition, but different rôles which propositions can play.

We have not yet exhausted the field of methodology ; it is not entirely made up of formal logic, of descriptions of the structure of science, of counsels of prudence. Consider a selection of the problems which have most agitated methodologists in recent years :—

1. How is economic theory related to economic policy ?

2. Are qualitative distinctions always expressible in quantitative terms ?

3. Are historical events unique ?

4. Is introspection a satisfactory method of observation ?

5. Can the clinical analysis of individual cases reveal scientific laws ?

6. Are social changes predictable ?

7. What sorts of concepts are scientifically useful ?

These questions, which I have selected from the writings of men like Kurt Lewin, Robbins, Knight, Allport, are not all of them expressed in a form which the fastidious

tastes of philosophers would approve. But two facts about them seem clearly to emerge :—

1. They arise out of genuine difficulties in economics, psychology and historical studies ; they are not imported into these fields by the malice of philosophers.

2. They lead us directly into a discussion of the traditional problems of philosophy.

Take the question about quantity and quality. One no longer talks about " hot " and " cold " but about " 30° Centigrade " ; about " loud " or " soft " but about " 3,000 decibels " ; about " quick " or " slow " but about " 60 ft. per second "—at least when one is doing science. Similarly, recent psychology replaces "intelligent " and " stupid " by " an I.Q. of 120 ", " advanced " and " backward " by " a mental age of 12." But are the psychological examples *really* parallel, or only burnt-offerings to scientism ? More generally, are we to maintain with Lewin that dichotomous distinctions in quality must always be expressible as differences in degree, measurable along a certain scale ? The typically philosophical questions of quantity, quality and degree are now sharply raised, and we see again where problems of this sort have their genesis.

They arise in the attempt to carry into all fields of enquiry a procedure which has been found to be useful in a certain field. Can we give a place and a date to mental activities ? Are there always natural explanations of natural phenomena ? Is there always a cause for every change ? These are the typical problems of Mind and Body, of God, of Human Freedom ; the issue they raise is whether the methods of the natural sciences have universal applicability. Questions about whether qualitative distinctions are always expressible in quantitative terms, about whether there are facts not accessible to observation, about the importance of prediction and of general laws in the social sciences, are all of them of this same sort. A method has worked in certain cases. Will it work in *every* case ?

This way of interpreting methodological problems has certain affiliations with the view that philosophical propositions are always methodological recommendations in disguise. On this latter view, " every change has a cause " is a way of saying that " it is always worth while to look out for causes " ; " everything is complex and changing " is a way of formulating the Heraclitean dictum " expect the unexpected or you will not find." But to put the matter thus is to bestow at once too much and too little importance upon the philosopher. Too much, for it suggests that the philosopher *invents* the search for causes ; too little, for it leaves the philosopher with nothing to do except to issue ex-cathedra pronouncements. Unless the philosopher can do something to show that every change has a cause, or perhaps not quite that, but to show that the obstacles which are supposed to prevent the generalisation of the method are not insuperable, then he is in the queer position of making recommendations which have nothing whatever to recommend them except the fact, perfectly familiar before the question ever reaches the philosopher, that the method has already worked in certain fields. Of course, the philosopher is sometimes the first to discover that a certain method is in fact being used : men syllogised before Aristotle, defined before Socrates, dated before they heard of Time, named causes before they knew anything of Principles of Causality. Discoveries of this sort are part of the philosopher's work as a sociologist of science, but they are not the whole, nor the most characteristic part, of his work. It is when he is generalising that the philosopher is at his most characteristic, and it is as a request for an inquiry into the possibility of generalisation that methodological problems most commonly reach him. To reply in the manner of an oracle is not enough ; it is precisely here that the theories and the techniques peculiar to philosophy are called into play. He can only recommend on the basis of inquiry ; the inquiry is not itself a set of recommendations ; the recommendations are related to his inquiries as policies are to theory. We

must expect the unexpected *because* we step and do not step into the same river ; just as we must look out for the traffic because we step and do not step into the same road.

We should be content, then, to put the matter thus : requests for philosophical assistance arise out of the methodological difficulties of scientists. The philosopher feels very much at home when he listens to Toynbee talk ; it's all so familiar, all about universals and particulars, about change and recurrence. Even the concrete universal springs suddenly into new life. Similarly, with a certain amount of special knowledge, the philosopher will feel at ease with Lewin, and will read Robbins on *The Nature and Significance of Economic Science* without any sense of being on alien ground.

Of course, one must have that modicum of special knowledge, a point worth noting. Sometimes a question will come at the philosopher in a form so traditional, so much in the manner of Hume or Kant, so little tied up with the details of a particular enquiry, that even this modicum of knowledge can appear to be unnecessary. But, for the most part, if we try to draw a hard-and-fast line between science and philosophy, if we think " that's an empirical question " ought to put a stop to any philosophical discussion, these methodological inquiries will be very disconcerting. For they are philosophical, that's hard to deny, and yet they are also scientific ; we are not going to get very far with them by relying on our knowledge of English usage (the one subject on which—quite falsely, so I believe—the modern English philosopher feels himself to be *really* an expert). Naturally, there will be linguistic puzzles, but from these we find ourselves driven two ways at once, one way into the special sciences, one way into the traditional problems of philosophy. Robbins and Lewin do not worry about whether they are *really* doing philosophy or *really* doing science. Why should we ? It is, I should say, one great advantage in the study of methodology that it helps to break down barriers, barriers between sciences, and barriers

between philosophy and science. If the training which philosophers now receive is of a kind which disqualifies them from inquiries of this sort, so much the worse for that training. For we shall, I am convinced, understand the character of philosophical problems only if we see how they emerge within these special inquiries. That does not mean that no one ought ever to work at philosophy except within a particular science ; these problems need to be raised and discussed in their most general form. But still, the extent to which it helps to clarify and to solve the problems of the special scientist is a principal test of a philosophical theory, and unless we work at philosophy with these special problems in our mind, giving concreteness to our inquiries, we easily lapse into the tautology-mongering and the scholasticism which are the traditional weaknesses of philosophical theory. Equally, it is desirable from the point of view of those particular inquiries that the special talents of the philosopher should be exercised within them. This is in the tradition of philosophy ; most of the great, and many of the minor, figures in the history of philosophy would have a place in the history of thought even if they had never written their works on pure philosophy. This is as true of Clarke, of Price, of Priestley, of Jevons, of W. E. Johnson, as it is, most obviously, of Descartes, Locke, Hume, Kant and Hegel. This tradition has recently been interrupted ; Moore and Wittgenstein, at least, are quite unknown except to philosophers. And the doctrine seems to be widely prevalent, for all the evidence of history, that the talents and the techniques of a philosopher are something totally distinct from the talents of a scientist. I believe, on the contrary, that the scientist—I am not, of course, referring to the multitude of technical officers but to the men who are advancing scientific knowledge—is bound to be a philosopher of sorts, and the philosopher a scientist, although often a bad one (a bad philologist, for example), just as the scientist is often a bad philosopher. As we have already argued, the scientist is likely to be unduly preoccupied with the

minutiæ of his own field of enquiry. The philosopher, in scholastic periods, may fall into the same trap, but is usually protected from the more vulgar errors of the scientist by his general interests and his knowledge (presuming that he has it) of the history of thought. If methodology is now coming to be the preserve of the special scientists, that is through the negligence of philosophers, not through any occupational unfitness for the task.

Let me now sum up :

1. Much traditional methodology consists in the search for a recipe which can be substituted for speculation. There is no such recipe.

2. Another part consists in the search for a method by which it can be shown whether it is " reasonable " to accept a particular hypothesis. There is no such recipe, although there are counsels of prudence.

3. A third part consists of an enquiry into the sort of thing that goes on in science, an enquiry which is partly sociological, partly logical.

4. A fourth part is philosophy, worked at in a way which brings to light the intimate connexions between science and philosophy.

Meeting of the Aristotelian Society at 21 Bedford Square, London, W.C.1, on December 6th, 1948, at 7.30 p.m.

III—"IS THERE A PROBLEM ABOUT FREE WILL?"

By D. J. O'CONNOR.

I.

THE view that the controversy about freedom and determinism does not arise from a genuine problem is not a new one. According to Hume* "All men have ever agreed in the doctrine both of necessity and liberty according to any reasonable sense which can be put upon those terms; . . . the whole controversy has hitherto turned merely upon words." At the present time, a large number of philosophers, though by no means all, accept Hume's view and I do not wish to question it here. What I wish to do is to examine some of the reasons commonly given in support of Hume's contention by those philosophers who agree with him. It seems to me that the conclusion is right but the reasons given for it are quite inadequate.

The moral philosopher is interested in this question chiefly because he thinks that there is a sense of the word "freedom" in which freedom is a necessary precondition of morality. What we have to ask is whether the linguistic treatment of the question commonly given allows us to talk about moral obligation in the ordinary unsophisticated sense of that phrase? There is a very common tendency among philosophers nowadays to admit that it is quite proper to talk about the freedom of the will while offering such an analysis of the concept of freedom as would make it quite meaningless to talk about moral obligation except in some new and

*"*Enquiry Concerning Human Understanding.*" Chap. VIII, para. 3.

strange sense. I would therefore like to consider two representative theories of this type.

The first is the theory offered by G. E. Moore in Chapter VI of his book " Ethics." He has previously defined a right action as an action which produces " consequences at least as good as would have followed from any action which the agent *could* have done instead." He has therefore to consider what it means to say that I *could* have done any action but the one which I in fact did. Moore admits a minimum sense of the term " free will " in which, when we say " we *could* have done a thing which we did not do, we often mean merely that we *should* have done it, *if* we had chosen." And he goes on to say that he cannot be certain that this is not all that we ever mean when we use such a phrase. He admits, however, that a great many people would refuse to allow that if this is all that we mean, we have any right to say that we have free will at all. He therefore carries the analysis further in order to assuage the scruples of these defenders of commonsense. He points out quite properly that such people will say : " Granted that we often *should* have acted differently *if* we had chosen differently, yet it is not true that we have free will unless it is *also* often true that in such cases we *could* have *chosen* differently." Moore therefore offers two senses of the word " could " which might be applicable here and neither of which contradicts the principle of causality. (i) The second of these senses is a trivial one and I will therefore treat it first. To say that we could have chosen differently might merely mean that no one, including the agent, could have forecast for certain which particular course of action would be followed. This is merely an indeterminacy of knowledge, not an indeterminacy of fact and seems to me to be totally irrelevant to the question at issue. It is certainly a possible meaning of the word and we sometimes in fact use it in this sense, e.g. " That horse could win the Derby." But it seems to me that in contexts referring to voluntary actions this sense of the word is never an explicatum of " freedom." (ii) The other sense of the word

" could " is more subtle but equally unhelpful. It consists merely in a repetition of the previous analysis. If " I could have done " means " I should have done if I had chosen," " I could have chosen " means " I should have chosen, if I had chosen to choose."

There are two objections to this analysis which are so obvious that it is impossible to believe that Moore was not perfectly well aware of them.

(*a*) This explanation merely pushes the difficulty one stage further back. Presumably the persistent objector who asks " But *could* I have chosen to choose? " would be told that " I could have chosen to choose " means " I should have chosen to choose if I had chosen to choose to choose," and so on, I suppose, *ad infinitum.* The infinite regress is clearly vicious as the explication which the analysis ostensibly offers is never completed.

(*b*) The second objection is that to talk of " choosing to choose " simply does violence to the facts of psychology. Of course, we do commonly say, for instance, " I have made up my mind to do X." But this is merely another way of saying that we have already made our choice and for some reason or other defer putting it into effect.

I think that a careful introspective examination of the act of volition will put this point beyond doubt. Or, if I must speak in a more fashionable way, I will say that it is not good usage to talk of " choosing to choose," as long as the two occurrences of the word " choose " are synonymous, any more than it would be good usage to talk of " trying to try " or " beginning to begin." Stevenson makes this same error in his treatment of avoidability and indeterminacy.* He says that " A's action was avoidable " means " If A had made a certain choice, which in fact he did not make, his action would not have occurred " or " His action would have been different if he had chosen differently." We want to reply to this analysis with the question " But was his *choice* avoidable? " And this question is necessary because

* *Ethics and Language.* Chap. XIV, pp. 298, 317.

it is choices and not actions that we praise or blame. Any action is praiseworthy or blameworthy only derivatively as being behavioural evidence of the preceding choice. And since Moore's infinite series of choices does not, in fact, occur, it is useless to postulate the penultimate term of the series. The old-fashioned libertarian will always ask of the first of a series of such choices issuing in action : " Was *that* choice avoidable ? "

For these reasons, it seems to me that this analysis of what we mean when we talk about freedom is inacceptable. And even if it were not subject to these objections, it certainly does not meet the requirements of the moralist who wants an analysis of free will which will allow for moral obligation and not one which will explain it away. Perhaps he is asking for too much when he wants this. However, we can at least ask that the philosopher should try to give an account of free will which can be reconciled with the strongest statement of the principle of causality justified by the available evidence and which, at the same time, will not make nonsense of our ordinary moral judgements. He can reasonably ask also that the account shall not give to the word " freedom " a sense entirely different from that which it usually bears. A. J. Ayer remarked in a recent paper* à propos of the definition of " freedom " as " consciousness of necessity " :

" It is indeed obvious, that if we are allowed to give the word " freedom " any meaning we please, we can find a meaning that will reconcile it with determinism : but this is no more a solution of our present problem than the fact that the word " horse " could be arbitrarily used to mean what is ordinarily meant by " sparrow " is a proof that horses have wings."

Ayer here states very clearly one of the important criteria which must be satisfied by any satisfactory analysis of the concept of free will and as he is well aware of what the problem requires it is interesting to look at the solution

* *Polemic No 3.*

which he himself offers. He distinguishes first of all between cases in which I act under constraint or compulsion, as for instance when I act under threat of physical violence, or under the influence of some psychological mechanism like a compulsion neurosis, and those cases in which I would ordinarily admit myself to have acted freely. Ayer asserts that the relevant difference between the two cases lies not in the fact that causality operates in one and not in the other, but in the fact that there are two different *types* of cause involved. As he puts it: "it is not when my action has any cause at all but only when it has a special sort of cause that it is reckoned not to be free."

He considers the hypothetical objection that it is irrational to distinguish between two sorts of causes because all causes of their nature necessitate equally and it is "arbitrary to say that a person is free when he is necessitated in one fashion and not when he is necessitated in another." In reply to this he points out, quite rightly, that to say that causes necessitate is a tautology, of whatever kind the cause may be. He goes on to say, however, that the only sense of cause which need worry the believer in free will is the sense of the word in which "cause" means "constrain" or "compel." In other words, there is nothing unacceptable to the commonsense defender of free will in supposing that his actions are necessitated so long as he is not asked to believe that they are compelled or constrained. It seems to me that this violates the criterion of analysis which Ayer has himself laid down. He objects rightly to analysing "freedom" as "consciousness of necessity" but offers instead an analysis which makes freedom consist in "unconsciousness of necessity." For consider the distinction which he makes between causes which contrain *and* necessitate and those which necessitate only but do not constrain. It is a purely *psychological* distinction: if I am conscious of having to act in a certain way irrespective of my own wishes in the matter, I am compelled and so am not free. But presumably as long as I am not conscious of such compulsion, I am free.

But there is an obvious objection to this. What are we to say, for example, about an illusion of free choice experimentally induced by post-hypnotic suggestion? Both Ayer and I would admit that such acts are necessitated but I should certainly deny that they are examples of what we mean by free acts, whereas I suppose that Ayer would say that they are free in the same sense as our ordinary choices are free as long as we are not aware of the illusion, i.e. as long as there is no sense of constraint or compulsion. But this is to make freedom, like judgments of simultaneity, relative to the observer. And it is quite certain that this is not what is ordinarily meant by "freedom."

But perhaps it will be objected in support of Ayer's position that it is the use of the words "necessary" and "necessitate" which confuses us here. This suggestion was made by Schlick* who pointed out that it is misleading to talk of natural laws being necessary or of causes necessitating or compelling their effects. The correct analysis of the statement that a natural law is necessary is that it is universally valid and holds in all cases where it is applicable. While the laws enacted in societies may properly be said to compel certain conduct in so far as they *prescribe* it, laws of nature do not compel the world to be such as it is but merely *describe* how it is in fact. But though all this is true, it does not seem to me to be helpful here.

The sense of the word "can" which is thought to be entailed by the fact of moral obligation may be an extremely difficult one to state clearly but at least it is easy enough to outline the weakest sense of the word which is compatible with moral experience. We are able to point to certain uniformities of co-existence and sequence between the events, both physical and mental, which together make up our experience. And there is a perfectly familiar sense of the word "cause" in which we sometimes talk of one event, physical or mental, causing another event, physical or mental. I push a book and it moves. I push a pin

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against my skin and I feel a pricking sensation. I will to move my arm and it moves. No doubt if we were speaking accurately, there are all sorts of qualifications which we should properly add in using the word. But we do constantly use it and its synonyms in quite familiar senses and contexts. Now what I want to suggest as the minimum requirement for an analysis of the phrase " free will " is that there are certain mental events, viz., volitions, to which *no* other event physical or mental, past, present or future, stands in precisely this relation which we *ordinarily* designate by the word " cause."

I think it is perfectly clear that Ayer's analysis does *not* satisfy this criterion whether or not we use the word " necessitate " in making the analysis. It leaves volitions in precisely the same relation of causal intimacy with the rest of the events which make up the universe as any members of this non-volitional residue have to each other. And to the extent to which it does this, it fails to analyse what we ordinarily mean by " free will."

II.

So far then I have tried to show that it is not so easy to dispose of the free-will problem by linguistic analysis as some philosophers have supposed. I want now to consider a positive argument for libertarianism, which though fallacious, raises a more important linguistic issue. The argument may be stated as follows :

Everybody agrees that whether or not we are in fact free, we all think we are, at least before our innocence on that point has been tarnished by speculation and sometimes even afterwards. I want here merely to draw attention to the empirical facts of the matter and to discuss what these facts may seem to entail. Now the determinist has clearly to explain away the fact that the existence of a

power of choice is in some sense a datum of experience and the obvious way open to him is to say that our consciousness of freedom is illusory. This was the line taken by Spinoza.* He pointed out that a *feeling* of freedom is no guarantee that we really are free because we sometimes dream that we are making choices and in our dreams we are conscious of the same feeling of freedom that accompanies the choices we make during our waking hours. But few people would maintain that the freedom of which we are conscious during dreams is anything but an illusion. Of course, a determinist could deny that he *ever* feels free and an indeterminist that he ever does so in dreams. But they could speak only for themselves. Therefore, Spinoza would say, the face-value evidence of our waking consciousness does not prove that we have a genuine freedom of choice because we know of plenty of cases where we experience a precisely similar feeling but which, we must admit, proves nothing of the sort.

In other words, we cannot distinguish *by inspection* between feelings of freedom which we have subsequently to reject as illusory and feelings of a precisely similar character as to whose evidential value we have no such *extrinsic* criterion. In a certain proportion of the total cases, viz., those which we experience when asleep, we have subsequent evidence which shows them to be illusory. As to the remainder, we can in the nature of the case, never find any evidence one way or another but since the cases which we *can* verify all prove valueless there are excellent inductive grounds for assuming that the remainder are no better. This is a very strong objection to the common sense opinion and I think that the reason why philosophers are very reluctant to support a " naive realism " in the matter of free will is that they believe that Spinoza's argument has disposed of such simplicity once for all. And we can find further support for this line of argument in the reports by neurologists of cases where direct electrical

Ethics, Part III, Scholium to Prop. II.

stimulation of the central nervous system occasions in the patient an illusion of voluntary movement. But it may seem to be rather doubtful whether it has in fact done so even though the indeterminist has to admit that considerations of this sort make it quite impossible to take our freedom of choice for granted on the basis of simple introspection. We must admit that *in any given case* of a prima facie free choice we can sensibly ask the question " But am I *really* free ? " But the point I want to make is that the undoubted fact that we can question in any given case the reality of our apparent freedom does not entail that we can ask this question about *all* our choices. On the contrary, it entails that we cannot do so. We may doubt our freedom *distributively*, so to speak, but we may not do so *collectively* for the following reason. The whole point of the determinist case in this matter lies in the fact that any apparent case of freedom may be illusory. But what Spinoza and his followers in this argument overlook is that we cannot meaningfully talk of an illusory case of X unless there really is a genuine case of X, just as we could not speak of " husbands " unless there were also wives. The word " illusion " is essentially a relative term. And therefore precisely because we are *sometimes* deceived into thinking that we are acting freely when we are not, we cannot always be so deceived. On the contrary there must have been *at least one* case of genuine free choice in the experience of anyone who is ever deceived in this way.

It may not seem very much to establish that I have had a power of free choice on at least one occasion in my life but it is quite sufficient to refute the determinist who might as well admit any number of free choices once he has admitted one. The indeterminist on the other hand has only to show that our actions are not *always* determined. What objections can the determinist raise to save his position ? I have space here to deal with only two obvious ones.

(*a*) Someone is sure to say : " Suppose I am suffering from hallucinations and see a unicorn in my back garden.

The occurrence of this illusion does not demonstrate the existence of unicorns, still less that I have myself previously seen a real one." Of course not ; there is a twofold answer to this. (i) I do not *mistake* the hallucination for a unicorn. Of course, if I thought I saw a tiger I might mistake it for a real tiger but only because I had already seen tigers or had good empirical evidence of a less direct kind for their existence (e.g. photographs, zoologists' descriptions, etc.). But in the case of freedom of choice indirect empirical evidence is not to be had. (ii) Hallucinations (e.g. unicorns or pink rats) are constructions out of sensory material given in other contexts. I have seen grey rats, for example, and pink ribbons. The alleged illusion of freedom is not complex but a simple datum of experience (though not, of course, a *sense* datum) which accompanies our acts of choice.

This leads to a second question. (*b*) " If you say, ' I saw a pink rat,' you make a mistake. But there is no possibility of error if you say merely, ' I saw a pink blob moving about in my visual field.' Mistakes of this sort lie only in the interpretation of empirical data, not in the reporting of them. You can say with safety, ' I have a queer feeling when I choose.' But you interpret this feeling to say, ' I have a feeling of freedom.' And in thus interpreting you incur the risk of error." In reply to this I should deny the analogy with our interpretation of sense data. Interpretation in sense experience is a special case of educing the relation between sign and thing signified. " Clouds mean rain " and " Red means danger " are familiar examples of such sign relationships. But what we must notice is that such relationships are established by *association* between units of *experience.* Thus if the analogy *were* valid, we should have, per impossibile, to experience " freedom " as well as " a feeling of freedom " and the determinist's case would be lost anyway. But it is not valid. " A feeling of freedom " is a phrase analogous to " a feeling of obligation " and not analogous to e.g. " a feeling of biliousness." And if it was, it would still be

nonsense to say, because of a feeling of biliousness, "I think I am going to have a bilious attack" if such events were quite unknown *in rerum natura*, and could moreover be proved to be impossible.

Nevertheless, there is a third objection which does seem to me to be fatal to this argument. It is, however, not an objection available to the determinist and I think that a consideration of it will show the real point at issue in this controversy. The objection is as follows. This argument inverts the relation between words and their referents. Language is based on fact and not vice versa. We can never acquire any new factual information by considering linguistic usage alone. We can merely clarify the knowledge we have already. The adjective "free" is ordinarily applied to certain types of human action which we can describe roughly in other terms. For instance, we usually call our actions "free" when they are preceded by relevant deliberation or when we are afterwards willing to accept responsibility for them. If we find subsequently that there is good evidence that the sufficient conditions of any such actions were in fact physiological events of which we were unconscious, we tend to correct our usage and to say that the actions in question were not "really free" after all. When we do this, we do much the same sort of thing as when we decide to call dolphins "mammals" instead of fish because we have found that in important features, fixed for us by the conventions of zoologists, they resemble the animals we previously called "mammals" more closely than they resemble fish. The conventions for the usage of the terms "free" and "determined" are not so well established and this is why the difficulty arises. Within certain rather narrow areas of fact we have a clear rule of designation for the use of the word "determined." We take as our paradigm a physical event in a relatively closed system such as a movement of a cogwheel in a piece of clockwork. The rule for the use of "free" is not so clear because our judgment that a given act is free is never incorrigible by subsequent evidence. And we tend to

think that this is very odd because it seems as if "real" freedom consisted of the set of those supposedly free acts against whose genuineness we never have any evidence. For we can and do have evidence that acts we once thought free were not in fact free but we can never have any evidence (other than its face-value character) that any given act really *was* free. Thus, "I was free at time t_1" is a proposition like "I feel a pain." But "I was not free at time t_1" is a proposition of an entirely different character and analogous to a statement like: "It is not raining." Now this situation arises because our linguistic conventions are not well established. And it is not difficult to see why this unsatisfactory position has arisen in the case of the word "free."

(1) We do not even know if "free" is a word like "coloured," "even" or "circular" to which the law of excluded middle can be applied or an adjective like "bald" of very indefinite range. Nor can we say how far it lies along the continuum of vagueness between these two extremes. On the one hand, we tend to regard the dichotomy "free or determined" as applicable to all human actions. Every action must be one or the other. This is because the range of applicability of the word "determined" is quite clear cut and it naturally follows that the range of its contradictory term is equally clear. On the other hand, we tend to use "free" as the *contrary* of "determined" rather than its contradictory. We consider that it is proper to talk of degrees of freedom and that, for example, an impulsive act can be a free act though less free than a similar act preceded by careful deliberation.

(2) This ambiguity is connected with a basic defect in usage. If we consider how we learn to use a new word, we see that we do so by learning to recognise the relevant differences between the situations in which the word is applicable and those in which it is not. Now what are the differences relevant to the use of the word "free"? It is clear that for the reasons already discussed, the occurrence

of a certain feeling of freedom or absence of constraint is not an adequate criterion. Now the only other guide we have is whether or not we are prepared in a given situation to pass a moral judgment on an act or accept responsibility for it. Nevertheless, it is always a sensible question to ask "But *why* do you blame him?" or "*Why* do you hold yourself responsible?" And the only answer to this question which would be accepted is "Because the act was freely chosen." We are involved in this circle because the word "free" has no positive content of its own. The traditional problem of free-will is the problem of determining whether *any* acts are free. It is a perfectly natural extension of the task of determining *which* acts are free. And since the inadequacy of our rules of usage has made it impossible to answer the narrower question, the wider question cannot be answered either. And it seems to me that linguistic considerations of this sort both tend to show why these questions are pseudo-questions and at the same time indicate the remedy.

In zoology, on the other hand, where our rules of usage are comparatively well-established the discovery that a dolphin is not a fish does not lead us to doubt whether fishes really exist. If the term "free" is properly used whenever I have a certain feeling, then the judgment "I am free now" is incorrigible. But if the judgment can be proved false by subsequent evidence, then my feelings are no sufficient warrant for the use of the term "free" except on one condition. This condition is that there is empirical evidence that actions accompanied by a feeling of a certain type have previous physiological events as their sufficient conditions in a significantly smaller proportion of cases than those not so accompanied. But, of course, we do not have this empirical assurance. The result is that we have no clear and consistent rules for the use of the term "free." It follows that arguments about human freedom are usually as futile as those of children who argue whether a certain colour is *really* red or *really* orange. For they arise from

the same sort of confusion. What we need to decide such questions is not new facts or more careful analysis but clearer and more detailed prescriptions for the use of language. And in so far as our doubts cannot be resolved by such methods, they relate to matters of fact which will be established only by the discoveries of physiologists.

Meeting of the Aristotelian Society at 21 Bedford Square, London, W.C.1, on January 24th, 1949, at 7.30 p.m.

IV.—PERCEPTION-STATEMENTS.

By J. O. WISDOM.

IN philosophy the word " theory " is not used for a scientific hypothesis, which is empirically testable. It is used, of course, for metaphysical statements, which cannot be empirically tested. But it may perhaps also be used for a set of statements that express without paradox experiences whose customary expression has a paradoxical appearance. A subsidiary aim of this paper is to offer a ' theory ' in this sense, to go as far as possible in the direction of describing perceptual experience without introducing anything non-experiential. This requires an investigation of the experience expressed by " I am seeing a table," rather than the conception of a table itself, which as usually treated presupposes a two-termed relation between percipient and perceived.

The Experience, " I am seeing a table ".

First, I am only seeing a certain organised pattern of a certain shape with varying visual depths associated with each part of the pattern. This *Gestalt* experience may be described by saying,

I am seeing a certain *percept*.

But there is more to the experience of seeing a table than that. Another part of it may be described by the statement,

I am believing that the percept has a perceptual back and tactual features.

But if I have taken no steps to check that these things are so, to ensure that I am seeing a table and not a piece of painted scenery, I must describe the experience by adding

But my belief is open to correction.

This last clause is important. Without it, the description describes what it claims to describe and it would follow that " I am seeing a table " is true, even though I might find on trial that I saw the kind of percept associated with a piece of painted scenery.

Tests are now carried out. I have the experience described as " looking at the back and touching ". If these experiences turn out to be of a certain kind (associated with seeing a table), I have in practice confirmed my belief and I say " I was and am seeing a table ". Let us describe the test experiences by saying

I have obtained *cohering* experiences.

If, on the other hand, the experiences turn out queerly, I say " My belief was wrong ; I did not see a table after all ". Let us describe these test experiences by saying

I have obtained *non-cohering* experiences.

It may be added that the tests are not always of the same kind : where chair-experiences are concerned I may sit ; where tea-experiences are concerned I may taste.

But a qualification must be added. If, on having the experience described by " I am seeing a table ", I look away or go out of the room before carrying out the tests, some trick or other might have been played. I might have had a hallucination of seeing a table and someone might then have put the table in the room, so that the tests confirmed my belief that cohering experiences were obtainable. Let the tests, therefore, be carried out in a continuous manner described by saying

I am seeing a table-percept and continue to see table-percepts as I walk ; and these experiences are cohering experiences. Moreover, if I stretch out my hand, there is a coherence (though of a different sort) between my visual and tactile experiences.

Since the activity of testing may last a considerable time, continuity between cohering experiences would in practice be interrupted by blinking of the eyelids, though the

interval between blinks could doubtless be prolonged considerably with practice.

Risk of error is thus reduced to a minimum. A finite number (indeed a small number) of tests is used (' common-sense ' ones), and if they cohere then " I am seeing a table " receives a high degree of practical confirmation. But what, you may say, if later tests fail to cohere? Then we may describe this experience in various ways, such as by saying :

The laws of induction or the laws of nature have altered ; I saw a table without doubt, but it is not continuing to behave like a table—it is no longer a table.

Or would one retract ?

I was in error in saying " I am seeing a table."

In deciding, it is necessary to conform with ordinary usage of language ; and this might vary from one experience to another.

If the experience of salt has been tested and then on further testing no salty flavour is experienced, one would describe this by saying that some other substance had been put into the salt. Here there would be no need or incentive to deny laws of nature or to doubt one's previous experience. Again, if the salt that has been tested surprisingly explodes one would still be disinclined to say that the laws about salt had changed or that one had suffered from a delusion in supposing that one had experienced salt ; one would say rather that some other substance had been mixed with it.

If, however, further investigation failed to reveal the presence of an impurity in an unexploded sample of the salt, or if the salt suddenly vanished without trace, or if one could pass a book through the top of the table as through an image, then the situation is more difficult to judge. But it should be noted that something very extreme must happen before it becomes necessary to doubt laws of nature or the reliability of one's experience. A collar stud may vanish out of one's fingers, perhaps for ever, without leading to any such doubts.

We have therefore to consider some extreme situation such as putting one's hand through the top of a table previously tested for solidity.

If, with Descartes, we doubt the existence of the table, at least three interpretations are possible : (*a*) we may mean that what was a table is no longer a table ; (*b*) we may mean that we have been suffering from a particular hallucination ; or (*c*) we may mean that we have been dreaming there was a table present.

The third interpretation—Descartes's—is not difficult to deal with. It is based on the analogy that, just as we wake from a dream and find we were deceived in attributing reality to the objects dreamt about, so we may undergo a ' hyper-awakening ' and find that we were deceived in this ' dream-life ' of ours. Now if a dream-table satisfies tests within a dream, then within dream-life " I am seeing a table " is true ; it is false only in relation to another general state of mind. In the same way, an ordinary waking perception-statement is false only in relation to some further general state of mind. Can we attach a meaning to this ; do we know what sort of experience could be described as a ' hyper-awakening from this dream-life of ours ' ?[1] Whether or not a meaning can be given to this expression, the ordinary experience of seeing a table must be judged by the tests made *within* the same general state of mind as that in which the experience occurs. What one means in a dream by " I am seeing a table " would not refer to tests carried out in the waking state ; in this life the statement does not refer to tests belonging to a ' hyper-awakened ' state. Thus I do not think there is any great difficulty in dealing with the Cartesian interpretation of the problem.[2]

The real difficulty arises about tests carried out within

[1] We might undergo ' hyper-awakening ' in one sense : I might find that the desk before me in my dream-life was not there, but that other objects were, and that they obeyed unfamiliar laws ; but whether any more radical meaning can be given is open to doubt.

[2] Leibniz made a similar point : G. W. Leibniz, *Philosophical Writings*, tr. Morris, London, 1934, " Letter to Foucher " (1676), p. 50.

the ordinary state of being awake ; for, in the ordinary use of language, " I am seeing a table " expresses expectations about the future, *e.g.*, that my hand will not pass through the top after being tested for solidity, and even the introduction of continuous cohering tests does not preclude such a possibility. Thus I might have continuous cohering experiences of testing the table and then continuously with this have the hallucination of my hand passing through the top, and even shed the hallucination once more, without having any discordant feeling or feeling like that of awakening.

While in practice, therefore, a finite set of tests suffices—only most bizarre situations could furnish grounds for doubt—and while perception must sometimes be veridical, we cannot assert beyond question that a given experience cannot be hallucinatory.

But this does not prevent us from justifying ordinary feelings of certainty. Dr. Popper has stressed the idea that the certainty of a test, *e.g.*, in the scientific field or in matters of perception, is relative to the domain of enquiry. Let us consider this in the present context. We can set up a sequence of experiences of decreasing degrees of doubt. Thus in the distance a square tower may look round. Near at hand if the light is bad the same thing may happen. In such circumstances we should readily admit hallucination or something approaching it. Where non-continuous tests are applied to an object near at hand in a good light, a smaller degree of doubt may arise : it must be admitted that in the intervals between perceptions some trick might have been played. But, where the tests are continuous and cohering, the possibility of doubt shrinks towards zero. The reason for this diminution of doubt is that the task of constructing instances of erroneous perception becomes greater and greater. But why is this ? It is not because we know absolutely that perceptual experiences become more reliable as we pass along the sequence, but because this is knowledge based upon past experience—we have experienced far fewer anomalies with near-by objects than with distant ones. At

the end of the sequence, where continuous cohering experiences are obtained, and even where there are breaks in the continuity, we suffer so few anomalies—we have to imagine them or perhaps create them artificially in a laboratory—that we trust the experiences unless there is overt evidence to make us suspicious. Thus the practical justification is the presence of unvoiced hypotheses or generalisations based on past experience. To the description of experience previously given I would therefore now add :

I have an unvoiced attitude that there is no reason to doubt that my future expectations about this table will be fulfilled ; which could become vocalised as the corrigible generalisation that continuous cohering experiences are reliable guides.

I would call this a *phenomenographical analysis*, because it is an analysis of experience-statements ; it is not the same as phenomenology or phenomenalism. It has certain advantages over phenomenalism. It deals with realities, not fictions ; it brings in the practical justification of trust in certain classes of experiences as compared with certain other classes ; it requires in practice only a finite and small number of tests ; and, while it does introduce an infinite set of tests at one place, this is confined to tests of a generalisation, to which an infinity of possible tests is relevant. It serves the same purpose as phenomenalism in that it removes all plausibility from scepticism, which asserts that we experience percepts alone and can never know whether there exist objects such as tables and chairs ; for, although absolute confirmation in a given situation is never forthcoming, differences of degrees of reasonable doubt render the doubt very small in some situations and rule out universal doubt.

The Conception of a Table.

From this phenomenographical analysis it is impossible to infer the existence of a table outside experience, *i.e.*, to assert " A table exists " in a categorical sense. The present treatment does not tell us what we mean by the word " table " ; it tells only what we mean by " I am seeing a

table ". However, as ordinarily used, a perception-statement refers to hypothetical objects ; and a phenomenographical analysis must not omit anything that is habitually involved, even though it claims to refer beyond experience.

What the ordinary person seems to be taking for granted is that he is experiencing a table, which exists unperceived, persists through time, is somehow causally involved in making him experience it, and has causal characteristics such as the capacity to support a book. This may be expressed by saying that "*a table*" *denotes a physical surface.* Seeking further information about this usage we ask : is a percept with visual shape and colour part of the surface ? A percept and a physical surface play different rôles, and one cannot put a percept on a physical surface in the way in which one can put one physical surface on another one—colour is not on a surface as paint is on a surface. No doubt percept and surface are closely identified, but double-image situations and bent sticks in water show that they can be separated, *i.e.*, the percept is not necessarily attached to a surface. Clearly, therefore, "*a table*" *is assumed to denote a physical surface which is in general capable of looking coloured and presenting percepts in suitable conditions (such as the presence of light and a living eye), though there are certain aberrant situations where there is dislocation between surface and percept.*

A question now arises about the sense in which a surface is visible. It is not visible in the sense in which percepts and colours are visible, *i.e.*, the statement that it is visible is not analytic but contingent. When there is no dislocation, the percept is where the surface is, in the sense that the tactile sensation of touching the surface is experientially located where the percept of the table is. This makes a usage available : "*I 'see' a surface*" *is equivalent to* "*There is no dislocation between my percept and my tactual location of the surface*".

Now these experiences, described in terms of a persistent physical surface, can also be described without it. Thus,

seeing a physical table can be described by absence of dislocation between table-percept and tactile sensation (without mentioning the surface) ; and a physical stick in water looking bent could be described by dislocation between stick-percept and tactile sensation containing no component sensation of a bend. Descriptions along these lines could be included in the previous phenomenographical analysis, which was relatively free of hypothetical features.

But the phenomenographical analysis now being offered is less free in this respect, since the experience described contains reference to a hypothetical object, namely, an unperceived persistent physical surface. It would be beyond the scope of this paper to discuss the pros and cons of this conception, but a few important features in connexion with it may be pointed out. Mr. Everyman assumes it to be meaningful, and it is a hypothesis that he infuses into his experience when he asserts " I am seeing a table " ; and he does this, moreover, in order to explain causal occurrences, such as when, after returning to his study, he finds a book on the table where he had left it.[1] From the nature of the conception it follows that the persistence of a surface, interpreted in a categorical sense, cannot be tested empirically—hence the tendency to analyse it by " If . . . , then . . . " statements, which are probably taken seriously because no alternative is forthcoming. The unperceived persisting physical surface is what Professor Reichenbach has called an interphenomenon[2], which is an unobservable interpolation between observables.[3]

Remembering a Percept.

Testing the perception of a table takes time and therefore involves the experience described as " remembering a

[1] The psychogenetic origin of the belief doubtless refers to the time when the baby ceases to feel that its absent mother is non-existent.

[2] Hans Reichenbach, *Philosophic Foundations of Quantum Mechanics*, Berkeley and Los Angeles, 1944.

[3] Assuming this interphenomenon, the surface here regarded as a subject of causal characteristics can also be regarded as an effect : for it could be an

[1] *Continued on next page.*

percept ". Could this experience be delusory? Certainly, when one has the experience described by this phrase one has *some* experience, but we must not suppose without further enquiry that this experience is the one ostensibly described, *i.e.*, the one that the grammatical form of the phrase would suggest, namely, an experience of remembering a percept previously perceived; for could it not be that one was having an experience that seemed to be a remembering of a previously seen percept but that actually was nothing of the sort? In other words, just as one can have a present hallucination or hallucinatory percept, one might have a 'retrojected hallucination', a hallucination thrown back into the past, through a conviction of having had an experience one did not actually have. To examine this we must describe allied psychological states.

Consider the experience of *imagining* a previous experience of seeing a percept. Coupled with this is the experience to be described as " knowing that one did not actually have that previous experience (but only imagined it) ". Now compare with this an experience of retrojected hallucination, which is coupled with a feeling that may be described by saying, " it is taken without question that the previous experience occurred in the past ". This is approximately illustrated by the well-known phenomenonon of *déjà vu*. One goes into a garden and is startled to have the experience described by " I have been here before ", although there may be plenty of (legally acceptable) evidence to show that this is impossible. The psychological explanation[1] of this

[3] *Continued from previous page.*

effect of a dance of fundamental particles such as electrons. If these constitute the ultimate furniture of the earth there is no need for surfaces: surfaces could be by-passed and the particles regarded as producing all the effects the surface is usually supposed to produce. But there is no objection to the introduction of the surface as a resultant of the particles and to treating this effect as a cause. We follow this procedure in statics. If a boat is being towed along a canal by a horse on each side, an effect is produced which is the resultant of the two pulls and which may be regarded as the cause of the ensuing motion.

[1] Freud's account is as follows:—Features of the scene arouse a strong feeling with which some other experience was invested; that experience is not

[1] *Continued on next page.*

might seem to be irrelevant here, because *all* references to the past in the experiences might in principle be retrojected hallucinations—a central point here.

If all recollection experiences contain retrojected hallucinations, it becomes impossible to make a distinction between experiences that involve retrojected hallucinations and those that do not. Now within the field of present experience we can indeed effect such a distinction ; on the one hand, we can have the experience of distinguishing between a retrojected-hallucination experience and an imagined past experience ; and on the other we can have the experience of distinguishing between a retrojected-hallucination experience and an 'ordinary' experience with a reference to the past—the experience of the two is experientially different. The first ground of distinction requires no discussion. The second may require elaboration. A subject who experiences the phenomenon of *déjà vu* does not have an experience of 'ordinary' quality : there is something strange and magical about what ought to be ordinary. And, though it is coupled with an unquestioning acceptance of the veridical nature of the experience, it is also accompanied by an experience of puzzlement—because the phenomenon does not cohere with other experiences in the way one is accustomed to.

[1] *Continued from previous page.*

remembered ; some associative link is discoverable between the present scene and the forgotten experience ; in short a sharp dissociation takes place between the ideational content of the forgotten experience and the feeling that invested it, the one being inaccessible and the other being aroused, while neither had faded or become diffused into elements of other experiences. (See Sigmund Freud, *The Psychopathology of Everyday Life*, London, 1948, pp. 226–8. On the significance of *déjà vu* in dreams, see Sigmund Freud, *The Interpretation of Dreams*, London, 1932, p. 375.)

Phenomenographically, what is striking about the experience of *déjà vu* is the feeling of familiarity *without* remembering.

But it is also possible to have the experience of remembering even though it is found that one could not have had the previous experience believed to be remembered. We might explain this in one of the following ways : either there was a hallucination in the past, which is remembered, or a day-dream, which later was taken to be a testable experience, or else the present experience of retrojective hallucination is a complex of affective elements that did not invest any such day-dream—as with *déjà vu*. Later it may be possible to trace the mistaken recollection to other experiences of which it is a distorted recollection.

Thus we are led to distinguish (i) *imagining* a particular past experience, (ii) *retrojectively hallucinating* a *particular* past experience, and (iii) *retrojectively hallucinating all* past experiences.

Now to suppose that (iii) is what happens is a form of metaphysical scepticism, equivalent to a sort of 'as if' 'theory': experiences would all have present reference but would be *as if* they referred to the past.[1] Such a view is met by the distinction just elaborated, for we have experiences that differ experientially from those containing retrojected hallucinations. We may call such experiences 'ordinary', but all that this means is that the past reference in an experience is experientially different from (*a*) something imagined and (*b*) something retrojectively hallucinated.

An example may be found in hypnotic hallucination. Suppose a subject is hypnotised and told the following: "You are seeing the back of a chair, you see the details clearly, and you are touching it with your hand; and you are remembering that you were looking at the front of the chair, you remember its appearance clearly, and you remember walking round it, looking at it all the time until you saw the back, which you are still seeing". Here, then, is an example in which there is a retrojected hallucination, in spite of the existence of continuous cohering experiences.[2] Might not our 'ordinary' life be one long trance, in which the world's population was the victim of retrojected hallucinations induced in hypnosis by the god Loki (or Descartes's demon)? A simple answer is that this is all irrelevant; accept the argument and agree that we are such victims; yet it remains that within our trance we should continue to

[1] One is reminded of Henry Gosses's defence of special creation, written in opposition to Darwin. His contention was devastatingly summarised by one reviewer in the following terms: fossils in rocks are *as if* they existed for millions of years, though in fact they appeared only a few thousand years ago along with everything else by a special act of creation; it is *as if* God had printed a lie upon the rocks.

[2] Retrojected hallucination probably occurs in dreams, as a result of secondary elaboration; it may even be characteristic of secondary elaboration.

distinguish experiences with past reference from those without it.

All this would suggest that we are now in a position to accept as veridical ordinary experiences of remembering a percept. But in perceptual experience we are dealing with a particular instance ; and, while it may be good to know that there are veridical experiences with past reference, what we wish to know is whether a particular instance is veridical.

It can happen that an experience with past reference contains a retrojected hallucination and yet that no discordant quality in the experience is noticed. Mostly, however, such a retrojected hallucination is not continuous with cohering experiences connecting it with the present, whereas the problem under discussion concerns continuous cohering experiences, which are involved in seeing a table. Within this field, then, the problem is to consider " a retrojected hallucination shading without any sign of discordance into a set of continuous cohering experiences ". This expression does not seem to be self-contradictory. If it is allowed to have a meaning, we should have to adopt the hypothesis that such hallucinations did not happen, on the grounds that in past experience we have not suffered from hallucinations in general. (This hypothesis could not be rejected as itself a delusion, for the idea of retrojectively hallucinating all past experiences has been ruled out.)[1]

Other Selves.

What kind of interpretation within the present framework is to be given to the belief in other selves ? That is to say, what is the phenomenographical analysis of statements about other selves ?

[1] For reasons of space it is impossible to do more than make a brief comment on the concept of time : in the phenomenographical analysis experience is not tested during a non-experiential time-interval—time is not presupposed ; the notion of time comes from the experiential contrast between experiences with past and future reference and those with present reference.

Suppose I see a certain percept and carry out appropriate tests to show that it has a back and is resistant to my hand, *i.e.*, it is in such respects like tables and chairs, and suppose I then have additional experiences as follows : (*a*) the object moves without being pushed, and is supported on two things something like my own legs and the legs of a table ; (*b*) part of it, like my hand, grasps an apple and moves this towards what resembles my mouth ; (*c*) I hold a lighted match under the things like my finger nails and there is a sharp movement away from the match accompanied by a noise that is very like the noise I should make in such circumstances ; (*d*) I prick it with a pin and blood appears ; (*e*) I utter some words, " That movement was sudden ", and observe that I then hear other words, " But what did you expect ? "

Is this object different from the table ? Certainly. Is it like myself ? We cannot say ; it might be like the table with some extra electrical appliances attached producing untablelike actions. Is it then a robot ? I find on inspection that there are some electrical appliances, but they turn out to be parts of what I call a torch and do not connect with the object itself in the way one expects such appliances to connect with the things they operate.

Though not a robot, however, it might be a parrot. But parrots, however appropriate their general behaviour, make inappropriate remarks. It is therefore not a parrot, but human, and this may be asserted in practice on the grounds of a finite list of experiences of the above kind, in which the response-behaviour and that important species of it consisting of speech-behaviour are both appropriate to their setting. (At the worst we shall end with some experiences of inappropriate behaviour and speech, not of the kind we are accustomed to in a parrot, but of a kind we might call " insane." If the object cries out, makes quaking movements, and says " There is a pink elephant coming to attack me ", there is at least a curious sort of appropriateness in that the terror-behaviour could be appropriate to an attack.

It will of course be pointed out that there might conceivably exist a parrot whose remarks were always appropriate. I would even add to this that there might exist a robot operated by distant radio. But if such a parrot and robot produced appropriate behaviour and speech like human behaviour and speech, then I should admit them as human. Is this fantastic? Consider going on a holiday with such an object or marrying one. If all the behaviour and speech (the emphasis is very much on the word "all") is appropriate, friendly, warm, and so on, there would be no reason to object. But does this not imply that one could be satisfied to have a "friend" who merely acted friendship? The answer is simple: if the acting is realised to be acting, the behaviour is incomplete and thus inappropriate; if it is not seen through, it remains satisfying.

There seems to be no difficulty in obtaining a finite set of experiences sufficient in practice to ensure that the object displays all the behaviour-reactions and responses of a human being. But do we not require another human being to have feelings resembling mine? Now there is no need to consider on classical lines the absurdities involved in considering whether I can perceive feelings in another person. Most discussions of this point are vitiated by the naive conception of the mind as a simple substance situated somewhere inside the head behind the eyes; whence follows an argument by analogy: from my body to my mind there must be a parallel from that other body to a mind in it—which is a fallacious form claiming brotherhood with the genuine inference that from my body to my heartbeats there must be a parallel from that other body to heartbeats within it.

But whatever view of the mind is adopted, a question remains: what justification is there for saying that other people have feelings; or, perhaps, for saying that feelings exist in other bodies?

This problem is approached by philosophers without a knowledge of how the belief in the existence of other selves

arises ; it is generally held that the justification of the belief may have no close connexion with the genesis of the belief. Now I would submit the possibility that there might be no problem of justification if we knew how the belief arises. Adequate knowledge here must await further scientific research in the psychological field, but a little may be said.

Psychological investigation leads us to speak somewhat as follows. The baby only gradually distinguishes between himself and his environment (indeed to begin with there is no separation between him and his environment inside his mother). For him there are feelings—it is not that there is a *he* possessing feelings—and these feelings are everywhere. Gradually his own self integrates, and he ascribes boundaries to volumes that have no feelings, leaving other boundaries—of human beings—full of feelings as before. The problem is therefore to some extent one of understanding not how he comes to ascribe feelings to others but how he comes to deny feelings to tables and other objects that we call "inanimate". This is not difficult to understand. He hits a table and it does not produce the behaviour- and speech-responses he is accustomed to in himself and other people. Moreover, a feeling is something manifested in behaviour—it is psychosomatic. There is therefore no question of any speculative conception of feelings devoid of manifestation.[1] Hence, since the table produces no feeling-manifestations, it has no feelings to manifest.

For all that, a problem may remain : for the baby does not enter upon a critical review of his habit of ascribing feelings to others ; he has always done so since he first differentiated himself from his mother, and he has not been led to reconsider the matter. He has not posited the feelings by analogy ; he has simply left them where they were. Is this sufficient methodological justification of his later adult belief in the existence of other's people's feelings ?

[1] We may if we wish take it to be a definition of feeling that it expresses itself. I think this is what the word means, though it has taken considerable psychological research to direct one's attention to it.

An objection might be raised that, though feelings may not exist without manifestation, it might be possible to find manifestations like those produced by feelings without there being any feelings. But the baby has never met such manifestations. People think it possible that such exist because they have a complete amnesia for the relevant infantile experiences.[1] The relevance of this is that, if one could remember the experiences of scattering feelings everywhere, one would not have been likely to invent the conception of a manifestation resembling a feeling-manifestation but due to something other than a feeling. But, now that the conception confronts us, does it alter matters? Can there sometimes be a feeling-manifestation not animated by feeling? To answer this, assuming that it is meaningful, we recall the following: (i) perhaps with the lifting of infantile amnesia we should find a closer correspondence between feelings and manifestations than we ordinarily have access to; and (ii) there is no actual phenomenon positively suggesting that there are feeling-manifestations without feelings behind them. In view of this we form the hypothesis that human beings do not have feelingless feeling-manifestations. Such a hypothesis admits the possibility but denies its likelihood. It is of a peculiar kind in respect of its verification: for the only way of obtaining confirmation is by a process of overcoming infantile amnesia to a very radical degree; and even then the confirmation is limited in scope.

An additional point that comes up is this. Having protested against the over-simplified conception of the mind as an occupant of the body and having used instead the conception of it as a jumble of feelings, I must link the over-simplified conception, which is undoubtedly the ordinary adult conception, to the proposed solution.

[1] About the personations of an actor we may say this. He cannot play the part of Hamlet well unless he can have feelings something like Hamlet's. Strictly, his feelings do not resemble Hamlet's; they must resemble the feelings of imagining Hamlet's feelings. (Nor does the member of the audience have the feelings he would have if what he saw was stark reality.) Thus we ought not in practice to deny that the actor has feelings appropriate to his part.

The child begins with a hotch-potch of feelings and ends with " a mind ", a unified lodger interested in entertainment provided for instance by the B.B.C. Third Programme ; it refuses to admit acquaintance with performances on the Light Programme which attract the body below the level of the head. But it is instructive to note that the rest of the body is admitted to have feelings, even though it is a sort of foreign body. Genetically, then, there came to be two groups of feelings : those of the body and those of the mind. Could it be otherwise than that the feelings ascribed to other people should be divided into the same two groups, so that other people should possess bodily feelings and minds ? This belief requires no methodological justification, if we agree that it is false—for basically neither other people nor oneself have these two groups of feelings separated and crystallised.

This treatment of other selves, it need hardly be remarked, is tentative.

Conclusion.

This paper begins with the experience described by " I am seeing a table ". Prior to testing, the fuller description runs :

I am seeing a certain percept and I have a corrigible expectation that I can obtain continuous cohering experiences

After testing the description runs :

I am having experiences that cohere with the experience of remembering the experience of a certain percept, about which I remember having a corrigible expectation that I could obtain continuous cohering experiences.

To this is added the unvoiced hypothesis that, after a finite and small number of tests, future anticipations will be fulfilled. In addition, in the experience is to be found a hypothesis about physical surfaces persisting in a categorical sense.

No philosophical problem arises out of this analysis,

except one : the question whether it has a meaning to speak of " physical surfaces existing in a categorical sense ".

Practical certainty of certain classes of judgment is allowed by this approach. Theoretical doubt, which does remain, is not like that of the sceptic ; and it is confined to the sphere of hypothesis where a theoretical doubt can and must be preserved.

The discussion of remembering admits a theoretical doubt at one place also, because it requires the introduction of a hypothesis ; this does not, however, materially alter the situation.

Similarly a certain amount can be done to put the feelings of other selves on the plane of practical certainty, with, again, a theoretical doubt where hypothesis enters the scene.

The purpose of this phenomenographical analysis is to gain the same objectives as phenomenalism was devised to achieve, while speaking in terms of empirical realities, but to go further by taking theoretical account of the practical difference between experiences involving relative certainty and relative doubt, and by providing tests that can be carried out in practice and not merely at the far end of an infinite sequence of hypothetical situations.

Meeting of the Aristotelian Society at 21 *Bedford Square, London, W.C.*1, *on February* 7*th*, 1949, *at* 7.30 *p.m.*

V.—THE PROBLEM OF SUBSTANCE.

By A. H. BASSON.

WHAT is a substance? Evidently we cannot answer this question by describing a substance. It is not a matter of saying that a substance is something of such-and-such a kind, having such-and-such properties. If it were, there would be no philosophical problem about substance. We might say that a substance is anything capable of having properties or qualities; it is something in which qualities inhere. A quality is then said to exist if it inheres in a substance. This makes it difficult to say under what circumstances a substance may be said to exist, and under what circumstances a quality may be said to inhere in a substance. If we see a certain quality (a colour, say), is this sufficient ground for saying that the quality inheres in a substance, or is something further required? Must we also establish independently the existence of a substance, and the fact that the quality in question inheres in it? If so, how are we to establish these facts? Surely we cannot claim to see both the substance and the quality and the relation of inherence between them.

Perhaps we can begin to answer these questions by considering another. Let us ask ourselves, not, What is the relation between substance and quality? but, What is the relation between substantive and adjective? Thus we replace what seems to be a question about the relation between different kinds of object, by a question about the relation between different kinds of word. Part of our notion of substance is simply the notion that substantives and adjectives have different uses. For example, there is a doctrine which says that only qualities can be sensed. If this meant that "I see X" is meaningful only if we sub-

stitute for X the name of a visible quality (that is to say, an adjective which connotes such a quality), it would be false. In fact, the propositional form " I see X " gives us a meaningful proposition, only if we substitute for X the name of a substance capable of possessing a visible quality. That is to say, we must put a certain kind of substantive in the place occupied by X in the form " I see X." When we speak of a visible quality, we do not mean a quality in which some other quality, the quality of visibility, inheres. We mean to say that we are allowed to substitute the name of such a quality for the variable Y in the propositional form " I see that X is Y." Now the fact that we can substitute only a substantive for X in " I see X " might lead us to say that qualities cannot be seen, not even the so-called visible qualities. On the other hand, the fact that we can substitute only an adjective for Y in " I see that X is Y " might in a similar way lead us to say that only qualities can be sensed. It does, indeed, appear that we can put the adjective " yellow " for X in " I see X," thus getting the proposition " I see yellow," and this would strengthen our idea that only qualities can be sensed. But the substitution here is not a simple one. We must understand the sentence " I see yellow " rather as an elliptical form of expression, which we are apt to use when we want to say that we see something yellow, or that we see that something is yellow. In the proposition " I see that something is yellow," the word " something " functions as a substantival variable, bound to a particular quantifier. The proposition might be re-expressed as " There is something which I see, and which is yellow." This form of expression is misleading, because it makes it seem that the verification of the proposition should consist in ascertaining three distinct facts, namely, the fact that there is something I see, the fact that there is something yellow, and the fact that these two things are the same.

The model of the relation between substance and quality, has always been a relation between one substance

and another. We speak generally of substances having qualities. We fail to notice that, although the sentence "Substance has qualities" is still meaningful if we replace the word "substance" by the name of a substance, it is not meaningful if we replace the word "quality" by the name of a quality. Because "quality" is a substantive, we tend to suppose that a quality is a kind of substance, that is to say, that it must be related to substances in the way that one substance is related to another. Now we distinguish substances according to their different qualities, but we do not distinguish qualities in this way, and this makes it appear that qualities must have a superior kind of existence. Part of the reason given for denying the existence of substance consists in the observation that we do in fact distinquish substances by their qualities, and not in the way (whatever it is) that we distinguish qualities. But this can also be a reason for saying that a substance must be something more than the sum of its qualities. In either case we come to think that, in order to know that gold is yellow, we should be able to see two objects and the relation between them (just as, in order to know that a man has a penny, we must see the man and the penny, and that the man has the penny). Those who protest against the idea of substance are often protesting, quite justifiably, against this picture of the situation. We do not in fact verify in this way that gold is yellow. Our mistake is to suppose that, because names are classified according to use into substantives and adjectives, so there must be a corresponding classification of objects into substances and qualities. Then it seems that, in order to decide if a name which is known by its use to be a substantive, is applicable to a given thing, we must look at the thing and decide by examination if it is a substance.

On the other hand, we see from the difference in use between substantives and abjectives, that no conjunction of adjectives can function as a substantive. This is what we mean when we say that a substance is not merely a bundle

of qualities. We do not mean that there is something else present (the quality of substantiality, perhaps ?), over and above the qualities in the bundle, and to which they are all related in some peculiar way. It is not a question of which of these two models is the right one : the model of a number of objects all related in the same way to some central object, and the model of a number of objects all interrelated but not related to any central object. If this were the question there would be no way of answering it.

It must be made clear that this idea of the difference between substance and quality as the difference in use between substantive and adjective, is not in any way dependent upon the grammar of a particular language, but is part of the essential nature of language as such. We can, of course, construct a language in which names are not classified into substantives and adjectives, but in which every name functions in both ways, although it is doubtful if such a language could be made consistent. In fact there exist natural languages approximating to this ideal. But these languages would be quite different from a language which contained only names doing the work of adjectives. The latter would be quite inadequate to the expression of even the simplest assertions (for example, " This is yellow "). If you eliminate substantives from a language you must correspondingly extend the uses of adjectives, so that they will no longer have only the uses of adjectives. In other words, they will no longer be simply names of qualities. In this way we see how facts of this sort about the nature of language show us something about the nature of things, something as it were metaphysical. The world is substantial. We cannot say if it might have been the case that a language without substantives could have been adequate to communicate our experience. I mean if the nature of our experience had been fundamentally different in some way we cannot describe. We cannot decide this because it would depend upon the possibility of the consistency of such languages, and we do not know if they can be made consistent.

We may ask why, if it is as simple as this, do we have disputes about substance? There is an answer to this question. We often assume, quite falsely, that language functions pictorially. This may have been the case with some very early written languages, but no modern written language functions in this way, and no spoken language could ever do so. When I say this, I do not merely mean that a statement in language is a very highly formalised picture, but it is not a picture at all. In other words, it lacks some of the characteristics essential to a picture. In a picture, however highly formalised, objects are represented by objects, qualities are represented by qualities, and relations are represented by relations. In a language, objects, qualities and relations are all represented by objects, namely, words. Thus in a picture we might represent a book by some object, a rectangular patch of paint, say ; and a red book would be represented by this object coloured in some way. Of course, red in fact need not be represented by red in the picture. Relations could be represented in a similar way by relations between the objects in the picture. Again, these relations in the picture need not be the same as the relations between the objects pictured, so long as they represent them formally in some way.

In a written language the situation is very different. If a language really were pictorial, I suppose a red book would be represented by the word " book " appropriately coloured, and a book on a table would be represented by the words " book " and " table " arranged on the page in some appropriate way. Such a language could never be adequate for all purposes, and there are several reasons for this. For example, we could not express what are commonly called negative propositions, we could not say that the book is not on the table, and so on. This is roughly the reason why we have to represent qualities and relations by words. Consequently, a red book, or the fact that a book is red, must be represented by a relation between the

word " red " and the word " book." We recognise that a statement says that a book is red, by seeing the words " red " and " book " and noting the relation between them. The occurrence of a copula is an irrelevant peculiarity of some languages. Because we do this with the statement, and because we wrongly suppose that the statement pictures the fact, we wrongly conclude that, in order to verify the statement, we must look at the objects to which the words " red " and " book " refer, and see how they are related. Our mistake would immediately be exposed, if we expressed the fact that the book is red, not by a relation between the words " red " and " book," but by writing the word " book " in red ink, say. Thus the relation between subject and predicate in a sentence does not correspond to any relation between objects in the external world. The same mistake occurs in philosophical discussion about relations, for a binary relation between objects is always represented by a ternary relation between words, and so on.

The language of pictures has its own problem of substance. In making a picture we need use only one material object, a sheet of paper, for example, and by means of a suitable embossed design we can represent almost anything we please. Because the picture, if it is a true picture, is in a formal way like the reality, this gives us the impression that the reality is created after the same fashion as a picture. It is as if we thought of reality as a picture made by modifications of an underlying substance, and this substance is like the paper on which the picture is embossed. Thus, empty spaces are represented in the paper picture, not by empty spaces, but by flat areas of paper. Just as we can see the paper on which the picture is embossed, so it seems that we ought somehow to be able to verify the existence of the substance or material whose modifications form the picture called reality. But of course reality is not made of anything special, in the sense that some different reality might have been made of this substance, or the same reality might have been made of some different substance.

This idea of a picture leads to some other considerations which may properly be called metaphysical. The phrases " picture of a rose," " thought of a rose " and " hallucination of a rose " resemble one another grammatically, and so we may come to think they say the same sort of thing. We come to think of thoughts and hallucinations as special sorts of pictures, pictures made out of a peculiar mental substance. This is connected with another train of thought as follows. We speak of seeing a rose, and of smelling a rose, but in the latter case we may equally well speak of smelling the scent of a rose. Now there is a tendency to assume that the words which express the different modes of sensing (seeing, smelling, tasting and the like) must have like grammatical properties. Consequently it seems reasonable to speak of seeing the sight of a rose. Just as the scent of the rose is not the rose, although it is causally connected with the rose, so it appears that the sight of the rose is not the rose, although it is causally connected with the rose. It then seems that our experience must consist entirely of pictures made out of the mental substance. It is as if reality used the mental medium to communicate with us, just as a man uses words to tell us what is going on in his mind. Thus the problem of appearance and reality and the problem of other minds both rest on the same mistake. They both appear as problems about how we come to know how to interpret the pictures correctly, and how we come to know which pictures are pictures of anything at all.

The mistake is first to suppose that we can speak of the sight of a rose, just as we speak of the scent of a rose, and second to suppose that sights and scents are like pictures. Only the second of these mistakes is partly avoided by a phenomenalist theory of appearance and reality. By a phenomenalist theory, I mean one which says that a real rose is related to the sights of a rose, as the average man is to real men. The real rose is an average sight, and we cannot speak of seeing the average sight, any more than we can speak of seeing the average man. This is satis-

factory in one way, and unsatisfactory in another. For example, questions about the qualities which the average man has are questions about the qualities possessed by individual men, and questions about the qualities of a rose may in a like manner be questions about the qualities of individual sights. But questions about changes in the qualities of the rose are not at all like questions about changes in the qualities of the average man. The average man changes because individual men change, but the rose changes although individual sights cannot change. Moreover, this comparison makes it seem that the difference between a real rose and a dream rose is a difference in the qualities possessed by the two objects (like the difference between the average Chinaman and the average Englishman), and this is the difference between one sort of rose and another. Now we can speak of a rose changing from one sort to another, but we cannot speak of an average man changing from an average Chinaman to an average Englishman. And even if we could, we still could not speak of a real rose changing into a dream rose, or of a dream rose changing into a real rose. There is a genuine ontological difference between reality and dreams, and all our difficulties come from trying to model this ontological difference on a difference between objects of the same ontological type. By this I mean there is something in the structure of our language, and perhaps there must be something in the structure of any adequate language, which presupposes a fundamental and inescapable distinction between reality and dream, and between mind and matter. If our experience had been different from what it is in some essential way, I suppose it might not have been necessary for our language to have this character. Accordingly, I suggest that the nature of language does in a sense show us something about the nature of things, and what it shows is justly described as a metaphysical dualism of mind and matter.

Meeting of the Aristotelian Society at 21, *Bedford Square, London, W.C.*1, *on February* 21*st*, 1949, *at* 7.30 *p.m.*

VI.—ETHICAL POSITIVISM.

By D. J. McCracken

A.—Introductory.

Some presuppositions.

In this paper, the following positions and usages will be adopted without argument :

1. There is a distinctive concept or category involved in Ethics. This I call " value." Accordingly I speak of value-judgments, which I hold are *sui generis* and irreducible to non-value terms (such as those of psychology or sociology).[1] Ethics is the philosophy of human conduct in so far as this is concerned with values. There are actual values involved in human life and conduct.[2] " Value " in these contexts will denote something " intrinsic " rather than something " instrumental," except where I explicitly state the contrary—thus a value is judged to be an " end " for conduct or contemplation.

2. Ethics is also concerned with concepts like " duty " and " obligation," but I hold that these are less fundamental than " value," being dependent upon and derived from the

[1] In Professor H. J. Paton's contribution to the recent symposium on " The Emotive Theory of Ethics," I have found a more lucid statement of what I call the " irreducibility " of ethical judgments than I could have hoped to achieve myself ; and I assume in this paper that his statement is unanswered and unanswerable ; though of course I do not assume that he would agree with my interpretation or application of it in what follows. (*See* Arist. Soc. Proc., Supplementary Vol. XXII.)

[2] For the conception of morality as " devotion to and promotion of non-moral intrinsic values," I am chiefly indebted to Professor O. de Selincourt's " Art and Morality," and to his teaching.

latter ; though this dependence may not be recognised by individuals or societies in which the authority of traditional rules and practices is unquestioned. Once we are forced critically to assess the claims of socially accepted obligations (and we *are* so forced in the modern world), we can do so only in terms of values (though of course we may *value* conformity and the sense of obligation).

B.—Note on Traditional Ethics.

Most philosophical moralists have in fact assumed (often with religious authority) that they knew what they meant by " the good life," and they have consciously and sharply distinguished this conception from what they " happened to like." Traditional ethics has consisted largely of an examination of the conditions and consequences of various conceptions of the good life ; and from such examinations a number of fundamental valuations have emerged, e.g., of happiness, knowledge, harmony, resignation, devotion to duty, etc., etc. In each ethical system there is found a fundamental value-judgment which gives it its distinctive character and sets it in opposition to other systems.

To maintain a *special* conception of the good life, one must reject other types of life as bad or wrong or evil or imperfect—words which may be said to express " dis-valuation." Hence, for example, advocates of happiness have dis-valued asceticism. In general most moralists have thus held a parochial rather than a universal view of the actual incidence of intrinsic value in human life. Marking off some modes of life as bad from others as good, they have assumed (I suggest too readily) that the bad life excludes intrinsic value. The endless disputes between rival ethical schools are due largely to the recognition by y of value in what x regards as value-less.

In spite of the exclusive theories of the schools men have gone on through the ages combining in their lives the most

diverse particular values ; and valuing most tenaciously *life itself*, even when the philosopher's values are scarcely recognisable in it at all.

In this paper I investigate the hypothesis that, underlying all particular values, and particular selections of value, there is a *universal* intrinsic value, not merely recognised *a priori*, but actually *given* in human life as such—thus providing a " positive " foundation for morality and ethics.

C.—" *Ethical Positivism.*"

The juxtaposition of the two words, ethical and positivism, might suggest that I am about to expound and perhaps criticise the treatment of questions traditionally recognised as ethical, by the ill-defined group of thinkers, still vaguely designated (in spite of occasional protests), " logical positivists." This, however, is not my main purpose. I am primarily concerned with positivism in another sense.

I propose to attempt, rather, to express a view of ethics, its content and method, which is positivist in that (I claim) it is independent of metaphysical and theological presuppositions, based upon " matters of fact," or, as I should prefer to call them, actual situations, and concerned with description rather than explanation. Before we can have a philosophical ethic in any more elaborate sense, we must learn to *describe* ethical situations in such a way as to bring out what is specifically ethical about them ; or rather we must learn to describe that, in human situations, which impels men to discuss them in those distinctive ways, which, at least since Plato, have been recognised as distinctive and called ethical. If the argument should lead us to conclude that *all* human situations are ethical situations in the sense of these terms which I shall develop in what follows, then we must follow the argument. My general hypothesis is that, in fact, certain human situations, or aspects of human situations are so distinctive—so clearly differentiated, for

example, from their general psychological or sociological aspects—that they require a special nomenclature and method ; that no substitution of psychological or sociological terms for the terms traditionally accepted as ethical (which I accept and use) can do anything but mislead. In other words, my general hypothesis is that of the autonomy of ethics in relation to other sciences, whether natural or social, its distinctive concern being with human *values* recognised and accepted *as such.*

My central task here is with the elucidation and verification by reference to actual situations of this and related statements. I shall call " positivist " an ethical method which asserts the actuality of values, or rather which proceeds from facts to their evaluation and back again to reinterpretation of the facts.

I shall not attempt to deal with all the difficult logical and epistemological questions which in recent years have been allowed to obstruct or even prevent the discussion of ethics (not to mention the great variety of related psychological controversies) ; but shall content myself with stating here that I reject the analysis of matters of fact into simple immediate data of inner or outer sense, and the theories of meaning and verification which go along with this analysis. It seems to me evident that the simplicity and immediacy (both, incidentally, *a priori* conceptions) upon which are supposed to rest the *incorrigibility* of sense-data, far from guaranteeing their significance, deprive them of it. In so far as such alleged immediate data (whether inner or outer) are completely immediate, simple, and so on, and involve no reference beyond themselves, they are, in my view, not only incorrigible but meaningless. Indeed their incorrigibility and meaninglessness are positively correlated ; they cannot deceive, for they " say " nothing ; and to look to them, in isolation and uninterpreted, for a criterion of either meaning or truth is a self-defeating effort, as the advocates of this method, in my opinion, have amply demonstrated.

One of the central questions of *general* philosophy in our time is how much factual content may be admitted into philosophy. So long as facts are equated with sense-data and these are represented as intrinsically significant, the answer must be : None. Facts so interpreted cease to be facts, if by facts we mean something actually given or presented in experience. In order that facts may be significant for philosophy they must be so presented that their irreducible complexity—their internal and external relatedness—is recognised *ab initio*.[1]

The central question of philosophical ethics may be expressed in a variety of ways. One of these is by saying that it is the question how the transition of thought from "facts" to "values" may be effected, or how facts may be admitted as susceptible to value-predication. An ethic which is not based on facts may rightly be accused of excessive abstractness and formalism : the approach to ethics through "mere" facts is rightly described as a naturalistic fallacy. To avoid these extremes we must look for *data* in which both value and actuality are given : facts which are not "mere" facts, and values which are not "mere" values. In what follows I shall use the words "human" and "humanity" and related words, *in a variety of ways*, to refer to situations which are not mere facts, but also values, and to values which are actual.

So far I have been trying to bring out that the relevance of facts to philosophy in general and to ethics in particular will depend on our initial analysis of "facts." From what I have said it should now be clear why logical positivism or any sensationist empiricism must fail to produce an ethic and must, on approaching ethical problems, proceed to talk nonsense. The initial analysis of facts in these methods precludes the possibility of ethical or even of æsthetical valuation. If all that can be significantly said of *data* is that they are *data*, from this point thought can

[1] It is significant that many physicists are now saying that the subject-object relationship is always relevant in physical observations and operations.

make no advance to ethics or anything else. If it is claimed that in addition to calling *data* " *data* " we may call them names, such as " red," we must remember that for a consistent empiricist the naming of immediate data is significant only for the individual " ego " which applies the name. The " ego-centric predicament " speaks for itself. A method for which it is claimed that it is based on the scientific study of language fulfils itself in denying the possibility of the chief function of language—communication between human beings. The naming of my own " private " data can be more than private only if naming be recognised as a *social* process. It is perhaps psychologically possible to invent an entirely private language, but no one would *persist* in the use of such a language unless it were " encashable " in public situations, in a world of common objects, and such public situations involve the identity, for practical purposes, of different " egos."

The actuality of human communication provides us with a point of transition to specifically ethical discussion ; for it confronts us with the fact that men as human *identify themselves*[1] with their fellow-men. (This would be part of my definition of humanity were I to attempt one.)

The actuality of the self-identification of man with man I assert[2] as a fact which is not a " mere " fact but also a value ; though this assertion must be understood in the light of the fact of human development. Men develop. Neither individuals nor societies spring into being in full maturity, like Athene from the head of Zeus. It is psychologically possible that self-identification may be experienced first as primarily factual and only later as also a value ; or first as primarily a value only later recognised

[1] Self-identification cannot be explained in terms of any simpler psychological phenomenon. In this sense it is " irreducible." It can, however, be instantiated by reference to actual *situations* which situations have simpler elements.

[2] The only way in which facts may be " brought into philosophy " is by *assertion*. The fear of assertion has kept them out for a long time in this century.

as part of the actual structure of all experience ; but men may and do *develop* towards an increasingly clear grasp both of these aspects of the situation as contrasted, and of their mutual dependence. Thus what is first experienced as " mere " communication may develop into " communion," and does so in the higher personal and social relationships. Nor need we deny the occurrence of an infantile level of experience at which life is confined to the having of sense-data and the expression of primitive emotions, cries of " booh, booh," and libidinous injunctions, accompanied by more or less complicated reflex responses. Such an infantile level of experience is found both in infants, where it is natural, and in adults who have remained at the infantile level. Even a few philosophers have persuaded themselves that they live in a world (if it can be called a world) of sense-data, some of which are mysteriously connected with what are called people—a person being " something we know not what " which provides us with sense-data from which we can conjecture the existence of " other minds." Even when such conjectures are justified, that is, when their premises are purely " empirical," the other minds which we are allowed to guess at, are represented to us as machines for the reception and projection of sense-data. Neither such reception nor such projection can constitute communication ; since that of which the " mind " is immediately conscious, is, according to this method, irrevocably *private*. It is, however, only in a *public* world that morality[1] is possible ; it is only of a public world that ethical thinking is possible.

I assert, then, *the actuality and value of the identification of man with man*,[2] of which communication through language is a special case, as a " positive " foundation for ethics, a

[1] Including immorality.

[2] The idea of a shared humanity is finely expressed in the famous lines of John Donne : " No man is an island, entire of itself . . . any man's death diminishes me, because I am involved in mankind, and therefore never send to know for whom the bell tolls ; it tolls for thee."

foundation from which fact and value develop as from a common nucleus. With those who deny the *actuality* of human communication it is clearly impossible to argue. Those who deny its *value* I would ask to consider the reasons why insanity is universally regarded as an evil (dis-valued). Prominent among these reasons, indeed fundamental to them, is the failure of communication between the insane and his fellows. In the degree of such failure the seriousness of the insanity can usually be measured. Here, then, in the intrinsic value placed by all men on the power to communicate and be communicated with by their fellows is a valuation which underlies all differences of detail upon ethical issues, and which is positively grounded in the facts of our humanity.

> " Self-identification with fellow-men is a universal feature of human life. It is exemplified in the fact of human communication. It is a fact which is also a value."

By some such statements as these, I should attempt to summarise my account so far of the factual basis of human valuation, on which (I claim) may be constructed a positivist ethics. These statements are, of course, " shorthand " for innumerable particular facts : the referents for their terms must be sought in innumerable actual situations. Only through such actual instantiation can they be either understood or verified. I appeal, like Locke, to " everyone's own observation and experience," but would emphasise that any such appeal must implicitly deny the final privacy of such experience. I appeal also to the objective facts of human behaviour observed " from without " ; for example, the give-and-take of traffic in the streets of our cities ; queues ; theatre audiences ; the great railway termini with the integrated behaviour of men and machines, the group-listening to announcements, the meaning and truth of which are empirically verifiable in terms of data (clocks,

bells, flags, engines) into which social men have themselves introduced significance.[1]

D.—Misunderstandings of "self-identification."

As soon as one mentions self-identification it is necessary to guard against a number of misunderstandings.

1. When I assert the fact of self-identification as exemplified in communication, and indeed in any living or acting *together*, I must not be taken to mean that all men like or love each other. Conscious sympathy and love are only special cases (or rather intensifications) of self-identification, and they are usually and perhaps necessarily restricted to relations within small groups. (Not only do I *not* assert universal love as a fact: I do not think that it should be prescribed by moralists. For one thing, love in its usual acceptation is not at our voluntary disposal.) For my purposes hatred as much as love exemplifies self-identification (in the sense in which I assert this as universal in humanity), and the cruelty in which hatred characteristically issues depends as much for its efficacy on "putting yourself in his place" as does authentic kindness. (This is well brought out in Edgar Allan Poe's story, *The Cask of Amontillado.*) This, of course, commits me to asserting an element of value even in the hatred-cruelty relationship; and brings out that I am asserting a value in *all* human relationships, so long as they involve a recognition of humanity as identical in the self and the other one. As we shall see, there are nevertheless degrees of "humanity" in human relationships. In conscious love or sympathy at one end of the scale identity is not only implicitly recognised but *willed* as well. At the other end of the scale, e.g., in the concentration camp, a deliberate effort is made to *deny* the common humanity. It is very important to note that it is almost impossible completely to deny this so long as the victim is alive. In the ante-rooms of some of the

[1] It is now technically possible to ensure that very large numbers of people are attending to the same *datum* at the same time. Philosophers have not taken sufficient account of this experimentally established common perception.

gas chambers the doomed were given pieces of towelling and stone-soap.[1] All records of penal systems, however much they were expressions of inhumanity, contain evidence of acts of mercy where the humanity of the gaoler, even of the executioner, reached out to the humanity of the victim.

This brief treatment must here suffice for the misunderstanding of self-identification as restricted to "pro" attitudes to people. As I use it, it is present in the battle-relationship or the warder-prisoner relationship, as well as in friendly co-operation. Even in warfare, it is a value as well as a fact, and as such is the foundation of "the laws of warfare," which regulate, for example, the treatment of wounded and prisoners; and also of the possibility of strategy. We distinguish the hostile relations of armies in the field as "better" than that of their murderers to the gas-chamber victims; and the basis of this distinction is the greater degree in which the gas-chamber situation is a denial both theoretical and practical of humanity. Yet even there, as we have seen, there was some self-identification.

When, therefore, I assert the universality of mutual self-identification between men and men as a "fact" which is also a "value" I am not asserting anything so naive as that all men love each other. I believe that, as I understand it, my generalisation will be confirmed without limit in "everyone's own" experience; but if this is denied, I am quite prepared to formulate it as a partial *definition* of humanity, expressing a condition which must necessarily be fulfilled before the name "human" can be *properly* applied. (As already indicated, I admit the existence of certain individual organisms, biologically members of the species *homo sapiens*, who have sunk to or never risen above a level of existence where they recognise adequately their identity with other members of the species: such individuals are properly called *sub*-human, in this language.)

[1] See, for example, the *New Statesman*, November 27th, 1948: article by Jack Lindsay: "It wasn't like this. . . ."

2. Second misunderstanding of self-identification as an actual value.

In the sense in which it is relevant to ethics, self-identification is not a theoretical statement of an abstract identity, e.g. :

I am A
He is A
∴ We are A

(*a*) For one thing such abstract identity is never *given*. It is a technical invention of the formal logicians to which they are perfectly entitled (so long as they don't pretend to have *found* it), as the man who wrote the Lord's prayer on a pin head was entitled to his achievement.

(*b*) In ethical contexts we are concerned to emphasise the practical rather than the theoretical, though I should hold that significant theory is only distinguishable, not separable, from practice, and even the distinction, in the field of human relations, is only one of emphasis. Thus self-identification certainly commits us, at the self-conscious level, to explicit statements such as : "I am a man ; nothing human is alien to me" ; but it also disposes me to act in certain ways and to adopt certain active attitudes. (These remarks may be relevant to the puzzles about whether our ethical beliefs make any difference to our conduct : *all* our beliefs make some difference, even such "purely" theoretical beliefs as that we can know only sense-data and tautologies.)

3. Third misunderstanding. I am not suggesting that all men experience self-identification in the same degree or manner. There are degrees of explicitness in the recognition of common humanity. Moral development may be tested, in one aspect at least, by the degree of explicitness of this recognition.

The same degree of explicitness of self-identification is not, however, equally appropriate to all situations. There is, for example, an important difference between what have

been called " face-to-face " relations on the one hand, and, on the other, the anonymous relations of a crowded city street. That ethical values are involved also in such anonymous situations may be well illustrated from the pedestrian-crossing in crowded traffic. The contrasts between the behaviour of orderly and disorderly crowds ; between social peace and civil war ; between the self-respect of the worker whose work is of social utility and the " demoralisation " of the unwanted unemployed—such contrasts are of great significance for ethics (for they are based on generally accepted value-judgments) ; and they can be accounted for, and only accounted for, in terms of the principle of self-identification.

Mutual self-identification is, then, a fact-value involved in all living together (and even in solitary thinking, in so far as men learn to think in the social medium of the family, and self-awareness develops *pari passu* with other-awareness.) To think of " behaviour " or " conduct " is immediately to *generalise*, to deny and transcend egocentricity. The universality of such a fact-value is often unrecognised because its presence at the foundation of our experience may be subconscious. The actuality and value of self-identification is most easily appreciated through the contrast of normal healthy life, on the one hand, with crime, and especially with insanity, on the other ; or the contrast of ordinary social life with prison life or some of the less desirable aspects of military service. In both prisons and armies some officials tend to take seriously the inhuman principle that their charges are " only numbers " : they ascribe to them the abstract identity of formal logic and regard them as only " numerically different." It is interesting to note how an abstract view of identity, apparently insulated from practical repercussions, can be thus involved in conduct—in this case, involved in inhumanity.[1]

[1] I am not, of course, suggesting that the " inhuman " warder or officer bases his inhumanity on a study of formal logic.

The self-identification with other subjects in which our humanity thus expresses itself, involves as its necessary correlate the assertion, and indeed the active maintenance, of a public world in which physical[1] and social relations are organically integrated. To earn the right to have my humanity recognised and respected I must be prepared not only to adopt such an attitude to others, but to admit them to my world, the world in which I believe and whose objectivity and significance I help to maintain by my assertions and my actions.

In speaking of "helping to maintain a public world" I am aware that I run an obvious risk of being accused of even more blatant mysticism than some will think I have displayed already. But here again I would claim that psychopathological phenomena and the phenomena of crime throw into relief the reality and necessity of such active maintenance of a public (intersubjective) world. In typical depression (in the pathological sense) the aggravation of the illness may be measured in terms of increasing withdrawal from the social milieu, increasing failure to communicate. But the objective correlate of this withdrawal is a process in which not only people, but *physical objects also* lose both their intrinsic significance and the significance which comes from their interrelation. And the disintegration of the depressive's objective world (as literally exemplified in his room and his possessions) becomes evident to others also. Books, pictures, letters, ornaments, once significantly interrelated and bright with meaning, are now "merely fragments," the mind that held them together being withdrawn in a deeper-than-physical withdrawal.

The foundations of ethics must, then, be sought not in the egocentric subjectivity of the isolated individual. (Such isolated subjectivity is never *given*, and, if it were, could not be communicated and would have no relevance in science or philosophy). They must be sought in a consciousness

[1] It is through their physical embodiment that our "selves" become "public." Hence the more-than-physical importance of this embodiment.

which self-consciousness discovers [1] to be inter-subjective and trans-subjective—in "*two-man consciousness*," as a Chinese diplomat recently described it.

My main point so far has been that *the intersubjectivity of human life is a fact which is not a "mere" fact, but also a value*; and, since it is a fact, therefore a *given* value. I have asserted the "universality" of this given value—whatever their specific wickedness men, as human, share in this value—but I must not be understood to be attempting to "prove" either the universality or the value. To look for a proof, in the sense of a scientific or logical *demonstration*, of these, is to display a fundamental misunderstanding both of the logical and the ethical issues.

Of course humanity—self-identification, communication, the assertion and maintenance of a public world—may be explicitly and deliberately repudiated. Men have claimed to hate and despise their own humanity; some have claimed to believe in their own super or sub-humanity and have asserted their egocentric uniqueness. Apart from the probability (independent of my earlier arguments) that such cases are, in the scientific sense, pathological, there is always an aspect of paradox about them, as about the explicit repudiation of communication. "I do not like the human race," says the jingle; but, if so, why bother to say it? Or consider a more serious example: "From now alway till my last day what I discern I will not say."[2] Here again the repudiation of communication is self-contradictory; and the poet provides us in these lines with the strongest confirmation of the pessimism which he earlier so frequently disowned.

Although I have claimed that fact and value are given

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[1] Cf. W. H. Auden:

"Oh how shall man live, Whose thought is born,
Child of one farcical night, to find him old?"
(*Some Poems*, p. 14.)

I would adapt these bitter words to suggest that man's thought is in fact born into a world of values, "to find him *moral*."

[2] Thomas Hardy: *Winter Words* (last poem).

as united in our humanity, I do not deny the *difference* between fact-judgments and value-judgments (though I am committed to holding that the two types may in fact coincide or coalesce and do so coalesce in complex statements like : *I am a man : nothing human is alien to me.*) The value-category is *given* in the reflective intuition of our humanity.[1] In this unique case there is a real identity of the concept of value with its content. But, once given, the value-category may be abstracted and applied to any content whatever. Humanity is the basis of all goodness ; but it is possible to say : " Evil, be thou my good." Men naturally value " utility," but anyone may reflectively formulate an ethic or aesthetic which renounces and disvalues the useful.

E.—Deduction of Specific Obligations.

Truth-telling and promise-keeping.

The deliberate making of statements to others knowing or believing them to be false is wrong or evil because it constitutes an attack upon and entails a denial of the common humanity which, in the form of self-identification, is the basis of communication. When I deliberately and successfully deceive another human being (and it is significant that we do not speak of " lying " to non-human beings), I can do so only through an abuse of mutual self-identification, of the appeal to a common mode of perception, of the interpretation of words in relation to a shared environment of objects and other persons. I invite my neighbour (by addressing statements to him and claiming their truth), to share, as human, my human world ; and at the same time I contradict this invitation and deny our common humanity, by leading him to think that that world is other than it is. Lies are usually told in answer to *questions*, and the asking of the question (if a *bona fide* question) has always a reference to a common world and a common

[1] Note the significant ambiguity of this word and of the related adjectives.

humanity *plus* an implicit request to be admitted to that part of it which has hitherto been the monopoly of the person questioned. Thus lying is always bad because it constitutes an attack, more or less direct, on the one ultimate and intrinsic value—humanity.

Whether or not lying is regarded by its victim as intrinsically wrong, the discovered lie is always regarded as a "wrong" done to him by the liar; and the sense of having been wronged is all the more intense if the liar is a friend—for in friendship an explicit self-identification and recognition of common humanity is combined with a high degree of appreciation of individuality. Friendship is thus an intensification of humanity; hence its special vulnerability to attack by lying.

All men in a peaceful society are under an implicit general contract not to deceive each other, whether by lying or breaking explicit promises and contracts. Contract is indeed a special name given to promises of a high degree of social and practical importance; the civil law enumerates such contracts and endeavours to enforce their fulfilment, since breach of contract usually involves one party in serious economic and other loss. Lying as such is not a legal offence, except where, as in "confidence" tricks, it is used to defraud, or for another criminal purpose.

I am suggesting that lying and promise-breaking are wrong or bad because they are forms of inhumanity, as much as the physical cruelty usually recognised as "inhumanity." Lying and its derivatives involve a denial of and assault upon, common humanity and a shared world. But their badness is not confined to the range of face-to-face relations immediately affected. Deception by lying undermines confidence (a word which denotes a special aspect of self-identification) it induces suspicion and diminishes humanity. (The most "inhuman" acts are usually done through fear.) And these effects of lying extend far beyond the immediate situation both in time and in the numbers of people affected. A lie infects not only personal but social

relations, with a spreading infection. Originally an abuse of "*two*-man consciousness," it rapidly contaminates much larger groups. Both the liar and his victim tend to have their humanity diminished. It is indeed a good measure of a man's humanity if he can remain "humane" after repeated experiences of being deceived by his fellows. It is significant that even when deception is attended by other wrongs, it is the *deception* that is most strongly reprobated. The confidence trick is felt to be morally worse than the simple larceny; and hypocrisy than simple sensuality—for "false pretences" and hypocrisy involve an explicit appeal to humanity, and therefore outrage it more seriously.

F.—Review and Conclusion.

In this paper I have asserted the intrinsic value of human life as such, that is, life lived in the consciousness of shared humanity, and have suggested how an ethic might be based upon this fundamental valuation—which I claim is "positivist" in the sense of "based on actually given aspects of human situations." In our humanity, I claim to find a value which is also a fact, and for support of this claim I appeal to "everyone's own experience."

I reject the empiricist's analysis of facts into simple data, and assert the existence of irreducibly complex facts such as our humanity. (Incidentally, I find myself committed to the view that some such facts are in some sense "universal.") I do not attempt to *define* humanity, but only to instantiate it from actual situations. The most significant of these for ethics are communication-situations and co-operation situations. Such situations necessarily involve mutual self-identification by agents and the willed maintenance of a public world; and as such reveal a "humanity" which is intrinsically valuable. (I have no objection to such situations being called "spiritual" if the word is kept free from theological presuppositions.)

The evil of insanity is analysed in terms of these values, and a similar analysis is applied to other examples of

behaviour generally recognised as evil. Moral and social evils are represented as essentially forms of *inhumanity*, or failure of mutual self-identification between men and men.

Truth-telling and promise-keeping are discussed as examples of obligations which may be deduced from the value of self-identification and the maintenance of a public world.

Finally, I would suggest—though I have not had time to go into this above—that the value of the " particular " values (such as " æsthetic values ") may be shown to be derivable from the more ultimate value of humanity. I should treat æsthetic value (as I have treated truth), as a communication-value. The artist is compelled by his humanity to communicate his vision and share his revelation *in a public medium.* At least this is true of art as we know it, for of other art (by hypothesis) we do not know.

Both moral and non-moral values have a common basis in our humanity, which is a datum of experience presented to us through the innumerable complex situations which constitute living and living together.

Religious values.—Although my thesis is in no way dependent on religious authority, I should claim that it is consistent with the fundamental valuations of Christianity and most other religions. In Christian theology the necessity for the divine values to be expressed in a human life is emphasised ; and the basic principles of Christian ethics explicitly refer to self-identification with others. " Do unto others as you would have them do to you " ; and " Love your neighbour as yourself " must here suffice as examples.

Communism, which is usually described as either anti-ethical or at least anti-Christian, presents us with : " To each according to his need, from each according to his ability." This principle, in my view, far from being irreconcilably opposed to the Christian ethic, is little more than a social application of the Golden Rule. Even the most sharply opposed " ideologies " involve fundamentally the same human valuations. It should be one of the first tasks of philosophy to seek for these and render them explicit.

Meeting of the Aristotelian Society at 21 Bedford Square, London, W.C.1, on March 7th, 1949 at 7.30 p.m.

VII.—A REVISION OF SPEARMAN'S NOEGENETIC PRINCIPLES

By G. P. MEREDITH

INTRODUCTION

When a man of exceptional mental calibre turns at the age of 34 from a military career to psychological research, we should anticipate interesting results, and in Spearman's case we are not disappointed. As he himself reminds us Descartes, Socrates and Plato all had their spells of military service. The very reminder is symptomatic. Men of magnitude were inspirations to Spearman. In his search for fundamental psychological *laws* he sedulously and explicitly took Newton as his model. Without laws, as William James declared, psychology was "no science," only "the hope of a science." Spearman's claim to have met this need did not lack boldness. When his "mission had achieved its climax," he says, "the supreme merit which I ventured—still with much diffidence and many reservations—to claim for the three laws . . . was not that any one of them . . . possessed any peculiar merit by itself. It was that the three conjointly constituted a system covering exhaustively the whole domain" (of the *knowing* process).

THE BACKGROUND OF NOEGENESIS

Let us examine this claim not only on its own merits but also in the light both of the fate of Spearman's system and of certain biographical facts. He was born in 1863 and already at the age of 10 he developed a taste for philosophy. Not even his closest companions knew of this, and it is evident that private and independent cogitation was a permanent and characteristic habit. He admits too that in his later

studies his intellectual preferences and dislikes were grounded in strong emotion, emotion moreover of an ethical nature. (The almost complete exclusion of both emotion and ethics from his mature system of psychological principles is a puzzle which must be left to others to solve.) Perhaps because of his independence of mind the obvious academic career did not attract him. In search of riper experience to illuminate his philosophical problems he took up soldiering, carrying his philosophical books with him. This period lasted till 1897, characterized by him as " almost wasted years." By then he was convinced that " if ever a genuine advance was to be made in philosophy, it would come mainly by way of psychology." As we shall see presently, he almost reversed this dictum in practice. At any rate his mental saturation in mediaeval scholastic philosophy exerted a marked, and in some ways unfortunate, influence on his approach to the psychology of cognition.

Hearing that psychology was being studied experimentally at Leipzig by the great Wundt, founder of the first psychological laboratory, and being disillusioned by his reading of the English associationists, Spearman now resigned his commission and betook himself to Germany. His psychological career there began in real earnest. We may appreciate something of his capacity from the fact that, in spite of an interruption caused by the Boer War involving another spell of service, he was able by 1904 to publish in the *American Journal of Psychology* a 90-page article on " ' General Intelligence ' objectively defined and measured," embodying concepts and methods of research which have kept psychologists busy all over the world for many years. Emphatically this was an epoch-making event. It does not however, bear directly on our present topic but, as a measure of the man, serves as an index by which to decide whether his later audacious claim to have established a comprehensive system of cognitive laws should be given serious consideration. For the odd fact is that though Spearman became a world figure, and the leader of the most vigorous school of psychological research in this country, the contribution which he

himself most prized, namely " Noëgenesis," has well-nigh perished of neglect. Take half-a-dozen modern British or American psychological texts at random, *e.g.* Woodworth's " Psychology, a Study of Mental Life," Dashiell's " Fundamentals of General Psychology," Knight's " A Modern Introduction to Psychology," Boring's " History of Experimental Psychology," Harriman's " Encyclopedia of Psychology "—Spearman's name when it occurs, is always associated with his factorial theory, and Noëgenesis is not even mentioned. A single book, " Ability and Knowledge," by Thomas (a pupil of Spearman) gave a full-length account of Noëgenesis. Aveling, Wynn Jones and a few others have given single chapters on the Laws. Apart from these, Spearman's own account in " The Nature of Intelligence and the Principles of Cognition," (1923), and a later restatement in " Psychology Down the Ages," (1937), are all we have.

What then are these principles, so boldly advanced, so coldly received ? And why this paradox ? Was there here a *folie de grandeur* or has the world ignored a prophet (or at any rate half of him) ? The title of my paper indicates a " Revision," not an exposition—the latter can be found in Spearman's own words. But a summary is needed, both to show what is being revised and to show how the paradox has arisen.

Spearman describes how, after his appointment in 1907 as Reader in Experimental Psychology at University College London, and later elevation to the Chair in 1911 (which he occupied till his retirement in 1931 at the age of 68), while developing his school of research, his own systematic approach was taking shape. After a prolonged but abortive attempt to establish a system of " ideo-presentation " and a (to him) rewarding excursion into mediaeval psychology, his schoolboy studies of J. S. Mill directed his interested to the conception of science as founded on *laws*. He went beyond Mill in demanding that laws should be not merely factual but *rational, i.e.*, " besides stating what goes with or follows what, they should also indicate that this occurs by the very

essence of things." The word " essence " reflects his mediaeval reading and provides a clue not only to his own conception of his laws but also, perhaps, to the coolness of their reception by psychologists who prefer their mythology to be modern rather than mediaeval.

THE NOËGENETIC SYSTEM

The following is a summary of Spearman's system as originally presented in " The Nature of Intelligence and the Principles of Cognition," with supplementation, where necessary, from " Psychology Down the Ages."

1*st Principle of Noëgenesis*

" Apprehension of Experience."

" Any lived experience tends to evoke immediately a knowing of its characters and experiencer."

[Elucidation and comment :

Experience is " something lived, undergone, enjoyed and the like " and must be taken as capable of ostensive definition only. " Tends " implies that the event is contingent and does not necessarily always occur. " Knowing " or " noësis " means that the manifestation is *self-evident.* This is common to all three Principles. The particular self-evidence in the event described in the first Principle is called " Apprehension." Thus an experience is necessarily "lived" and *tends* to be " apprehended." " Characters " are attributes inhering in " metaphysical substances " which may be psychic or physical—in this case psychic, since elsewhere Spearman makes it clear that the characters of percepts cannot possibly be similar to those of physical objects. He does not attempt to define his " psychic substance." The interesting point emerges that the word " knowing " is undefined but is, by implication the property of *self-evidence* in the manifestation, and is not therefore—as most of us would suppose—to be regarded as a *relation* between subject and object. For the subject is the " experiencer " or ego, and this, too, is " known." Thus the seeming simplicity and even triteness of this first

Principle conceals a considerable load of implications. It would seem that, when noësis occurs, the " psychic substance," to which both the *experience* and the *experiencer* belong, blossoms into the state of " self-evidence," a state which cannot be further defined. The experience itself is regarded as produced by—though in no way *resembling*—its physical stimulus. The insistent character of *objective grasp* which common-sense reads into the word " knowing " is absent from Spearman's " noësis." Thus we are presented with a picture of states arising in a psychic substance and pursuing their own course by their own psychological laws, their only relation with external events being that of causal initiation—the latter referring to the *experience* only. This, in turn, *tends* to evoke noësis. But this is ambiguous. It may mean either (*a*) that noësis *occurs* unless *prevented* by other forces or (*b*) that noësis does *not* occur unless *supported* by other forces. It seems unlikely that noësis occurs to any great extent in animals, though they do appear to have experiences. This suggests alternative (*b*) as the more probable, for it is implausible to suggest that noësis was striving from the Protozoa to Pithecanthropus against forces which, only in Man, weakened finally to let it occur. But if we accept (*b*) then the Principle is inadequate, for it should state the *other* forces which combine with the evocative force of experience to produce noësis. Further, the precise psychological character of an experience which *fails* to evoke noësis is not made clear.

These objections suggest that if Apprehension of Experience is a major mental process Spearman's First Principle needs careful restatement to do the facts justice.

Spearman indicates clearly the range of " material " covered by the law, *viz.*, the familiar experiential data of experimental psychology : sentience, with its variety of sensory qualities, its ranges of quantitative intensities and its spatial and temporal characters ; affection ; conation ; the Ego ; and cognition itself which, as it occurs, *is* an experience and so can, in its turn, be cognized. All these events display certain important features, *viz.*, *unity*,

coherence, insight, belief and *propositional import.* This last feature is of particular interest from the point of view of my proposed revision. " The end-state of the knowing, although in general dispensing with all use of language, nevertheless invariably has an import equivalent to a complete proposition." For example, " I am aware that ' I am cold.' " The word " dispensing " places Spearman in the Russell camp as against Carnap. More important, this all too brief reference to " propositional import " shows Spearman to have caught a glimpse of a field of thought which, had he pursued it by the appropriate techniques, would have proved momentous for the whole development of the Noëgenetic Doctrine. Of this I shall say more presently.]

2nd Principle of Noëgenesis

" Eduction of Relations."

" The mentally presenting of any two or more characters (simple or complex) tends to evoke immediately a knowing of relation between them."

[Elucidation and comment.

No brief account can at all do justice to the power and fertility of Spearman's exploration of the psychological consequences of this principle. With it he opens up a whole world of events as novel and as rich in its way as the unconscious world opened up by Freud. It is not easy to pin down the elusive dissatisfaction which one nevertheless experiences in weighing up this section of the Noëgenetic Doctrine, a dissatisfaction which, if shared by others, may account for the present virtual oblivion of the whole system. It would be neither feasible, nor desirable in such a cursory examination as this to attempt a detailed criticism of the extensive applications of this second principle into virtually all the major ranges of cognitive processes. Nor is it the principle itself which chiefly needs amendment—apart from those features which it shares with the first principle. Rather is it a certain perverse inconsistency of policy on Spearman's part which fills one with increasing uneasiness throughout

the exposition. In seeking to place psychology on a firm, self-sufficient and homogeneous basis of *law* he implies that psychology need have no truck with physics and biology on the one hand, or with metaphysics and philosophy on the other. But he departs from this policy whenever the needs of exposition require it. Nowhere is this inconsistency more evident than in his treatment of *relations*. He defines a " relation " as any attribute which mediates between two or more fundaments and explains that " this cosmos of ours consists of metaphysical ' substances ' " partly psychic and partly physical (how they can be simultaneously physical and metaphysical is not explained). He then retreats somewhat by denying any attempt " to depict the cosmos truly " claiming only that all depicture of it would appear to be rigorously confined within these boundaries, so that what he is dealing with is not the cosmos but " the gross product of all human cognitive operations whatsoever." It is a pity that his pre-occupation with the metaphysics of the Schoolmen prevented him from benefiting from Whitehead's " Enquiry concerning the Principles of Natural Knowledge." He would have found that the depicture of the cosmos can be (and is) carried out not in *one* but in *five* different ways, *viz.*, into (i) " events," (ii) " percipient objects," (iii) " sense-objects," (iv) " perceptual objects," (v) " scientific objects." These are all possible and useful modes of " diversification of nature " and it is the neglect of the distinctions between them which produces confusion. This confusion permeates and vitiates the greater part of Spearman's treatment of relations. The fact is that experience is so saturated with relatedness that *any* scheme of relations, persistently applied, cannot fail to yield novel and stimulating insights. It is Spearman's scheme of relations, rather than the second principle itself, which lets him down so badly. Following his bi-partisan policy of having his cake and eating it, he declines on the one hand to commit himself on the metaphysics of relations and in the same paragraph divides them into " real " and " ideal." Surely if he is dealing solely with human cogni-

tive operations his relations should be all on the same level of reality, *viz.*, *psychological.* If, however, he wished to discriminate among these to take account of the discriminations introduced by the mind among its experiences of relationships, then he should take account of every variety of relational structure occurring in the whole history of human culture—and even then he would be overlooking the mentality of the animals.

Spearman proceeds to list 10 varieties of relation as follows: The Seven "Real" Relations: Attribution, Identity, Time, Space, Cause, Objectivity, Constitution.

The Three "Ideal" Relations: Likeness, Evidence, Conjunction.

(It would be unkind to suggest that the very choice of numbers hints at an unconscious penchant for numerology, but, 10, 7 and 3 are redolent of mysticism.)

Now this is admittedly a tentative list but the significant point is that, whereas a really adequate handling of the problem of sorting out *relations* would have played the same sort of rôle in the development of Noëgenesis as the differential Calculus played in the development of Newton's Laws into an all-powerful tool of mechanical analysis, Spearman appears to have made no effort whatever to improve on this scheme. Fourteen years after originally propounding it he was content to say (in "Psychology Down the Ages"):

"*On the presentation of two or more items, a person tends to know relations between them* . . . In order to render this law psychologically alive and fruitful, however, it must be supported by an enumeration and description of all the known relations. As to what precisely these are, there is naturally room for difference of opinion. But there has not been much controversy; for the simple reason that there has not been much consideration. The following is one attempted list," and here follows the 1923 list unchanged !]

3rd Principle of Noëgenesis

"Eduction of Correlates."

"The presenting of any character together with any relation tends to evoke immediately a knowing of the correlative character."

[Elucidation and comment.

The rôle of this law in the scheme is to account for novelty and creativeness in mental processes. In Spearman's hands this principle is even more productive of psychological insights than the previous one. Indeed he devoted a book, "Creative Mind" (1928), to elaborating the range of application of this single principle in the whole of human achievement—art, science, technology, etc. Its enunciation seemed to afford him enormous satisfaction. The coolness of its reception must have been a source of great chagrin. It suffices here to point out that it is, like the other laws, merely *descriptive* and not *predictive.* Given that an invention or a work of art has been achieved it provides a formula for making a *post mortem* analysis of the structure of the work. But it tells us neither *how* the artist produced it nor *what* he will probably produce next.]

THE FAILURE OF NOËGENESIS

Space does not allow of any treatment here of the so-called Quantitative Principles (Constancy of Output, Retentivity, Fatigue, Conative Control and Primordial Potency) by which Spearman handled the problem of scientifically determining the actual operation of the noëgenetic processes in the normal mind. Nor shall I make more than a passing reference to his famous Two-Factor Theory of Intelligence, a significant reference however. It is the latter by which Spearman is to-day principally known —even though it is now superseded by Multiple-Factor theories. And I attribute the failure of Noëgenesis *in part* to the very success of the Two-Factor theory. The developments and controversies associated with the latter, stimulated by an insistent demand from the educational world for efficient selective tests of mental capacity to implement educational reorganization schemes, kept Spearman working at full pressure almost till his 80th year, on problems which

were primarily mathematical. The failure of Noëgenesis, though arising partly from certain fatal gaps in Spearman's own philosophical equipment, is a failure—more serious in its implications—of the intellectual and educational world to seize on a system, however imperfect, which claimed, not entirely without justification, to provide a comprehensive approach to problems far deeper in intellectual and educational import than those of sorting children into different types for different schools, *viz.*, the problems of the *cognitive growth* both of these children and of adults. The weaknesses of Noëgenesis could have been remedied had the intellectual climate favoured an appreciation of the immense significance of Spearman's ambitious conception.

Spearman inhabited three worlds, those of German experimental psychology, scholastic philosophy and statistical mathematics, and made effective incursions into a fourth—education. He was at his most powerful in forging statistical tools for psychological research, and at his most felicitous in analysing laboratory data. His references to physiology are perfunctory (*e.g.*, Sherrington gets a single unimportant reference) ; his attitude to biology exhibits an entirely inadequate appreciation of the bearing of evolution on cognition ; his physics is superficial ; and he resolutely excludes the whole of modern philosophy and logistic. These are not intended as criticisms—a single life-time cannot accommodate all wisdom—but they do point to the weaknesses in the foundations which prevented a solid building from rising up on the Noëgenetic site. There is no firm basis in Noëgenesis for causal and predictive accounts of cognitive processes. On the other hand the lack of a rigorous logical technique renders it quite inconclusive as mere analysis. Yet the extraordinary wealth of experimental data yielded by the prodigious labours of the German—and later, American—laboratory psychologists, did cry out for just such a systematic integration as Spearman attempted. But the new wine needed new bottles.

Even in Spearman's own mind Noëgenesis seems to have suffered something of an eclipse. Laws of such momentous

import as he had at first claimed should, after fourteen years, have merited an elaborate and full-length exposition in his later volumes, to substantiate their early claim. But in " Psychology Down the Ages " not more than a single short chapter is devoted to them and no advance is revealed.

We may now ask this question: given that the Noëgenetic scheme merits attention, what did it, or Spearman, lack which could have converted a tentative formulation into a powerful working system? The other half of his work, the Factorial Theory, also began as a tentative formulation, but *it was provided with an effective analytical technique* (*viz.*, statistical mathematics), and rapidly developed into a major branch of modern psychology. I suggest that Noëgenesis failed *precisely because it lacked any corresponding technique.*

What sort of technique did it need? Noëgenesis needed to systematize the *classification* of its data, to explore their *propositional import*, and to analyse its whole field of *relations*. Spearman, with his eyes fixed on Newton's *Principia*, was apparently unaware of the contemporary production of another *Principia*, that of Whitehead and Russell. Could he have spared time for it he would have found a Calculus of *Classes*, a Calculus of *Propositions* and a Calculus of *Relations* which would surely have opened up an entirely new world to him, and given to his system exactly the technique it so badly needed.

Conceptual Models

It may be asked whether the search for comprehensive laws is necessary, and, if so, what purpose they serve? If we could be certain of their truth this would sufficiently justify them. But " mind " is the least likely of all phenomena to yield its final truths to our present imperfect specimens of it. Newton's Laws are not now regarded as final truths, but this realization does not render them valueless. To-day we have a significantly different approach to the quest for truth. We accept Newton's scheme as essentially a conceptual model of the mechanical universe,

a working model of relationships between mass, momentum, force, velocity, acceleration, absolute space and absolute time. Combining this model with the language of the differential calculus it was possible to express and solve an unlimited range of mechanical problems. That the solutions approximated so closely to empirical data was a tribute to the insight of Newton into a large area of cosmic relationships. But there are many more pebbles on the beach and more comprehensive models were forthcoming to include them. One very bright pebble is the mind of man. Spearman attempted to construct a model of this pebble all by itself. But he did not sufficiently appreciate two important facts about this pebble, *viz.*, that it is *part* of the whole beach and that it *reflects* the whole beach.

Can we then construct a model which shall (1) reproduce the major features of the mind and its modes of operation, (2) utilize an economical minimum of components, and (3) shape those components so as to be translatable into a deductive calculus enabling us systematically and adequately to solve the major types of psychological problems which confront us? The construction of this model I take to be the principal task of theoretical psychology to-day.

In indicating an approach to the task I must point out that any scheme which aims at contributing to a *science* of psychology must be judged within the inevitable limitations of all science. An honest science recognizes its own implicit metaphysic. This does not make it a metaphysical construction nor does it commit it to attempts at comprehensive explanations of the cosmos. The materials of science consist of selected empirical data, and its tools are the techniques of experiment and logic (including mathematics). These conditions force science to exclude all such considerations as *value. uniqueness*, and the like, which properly belong to philosophy. It is therefore no reproach to a *scientific* psychology that it excludes such matters. At the same time this very exclusion makes it impossible for such a psychology to give a *complete* account of human nature.

STEPS TOWARDS REVISION

Is it possible, then, to revise and extend Noëgenesis? I believe this to be both possible and essential. Psychology to-day is in the grip of a chaotic empiricism which enables anybody to "prove" anything. Its quantitative techniques have completely outrun both its qualitative insights and its deductive processes. To remedy this, Noëgenesis needs to be corrected and extended in two directions, outwards and inwards. Outwards it needs to be equipped with a firm biological setting, from which the mind can be seen not as a stage for fictitious drama but as an instrument of truthful adaptation. Inwards, its operations need to be seen as combinatory and integrative activities which (however faulty) do, on the whole, solve its owner's problems and have, therefore, some measure of truth and hence a definite relation to logic.

My proposed revision therefore falls into two parts, one relating to biology, the other to logic. This present exposition, for lack of space, must confine itself to the first of these aspects, since this provides the foundation for the second. The latter I hope to present on another occasion.

The construction of an adequate model depends primarily on insight into the facts. Spearman spent an unconscionable amount of time examining and criticizing previous verbal formulations instead of asking himself the all-important question: "What is the character of the field of fact with which psychology has to deal?"

Can we then construct a psychology which shall be truly based on *facts* instead of *words?* This need not imply the exclusion of hypotheses, nor of course can we dispense with language. But in its use of the latter an empirical psychology would avoid starting from such terms as "intelligence," "instinct," "consciousness," followed by attempts to find facts to fit them; rather would it study the facts and seek to classify them by objective criteria, introducing descriptive terms only when clear classificatory denotations required names to mark the groupings. We need not even demand that the classifications be *exclusively* objective—

probably this is impossible, for every act of classifying is based on a policy and this policy is determined by the kind of questions we are seeking to answer, *i.e.*, by intellectual and practical *needs*. The fish are real but the mesh of the net is arbitrary.

The Data of Psychology

What we have to deal with is a group of objects exhibiting a set of definable characteristics known as "life." (In general, however, we exclude plants from psychology.) These characteristics are describable in terms of three types of feature, two of which are phenomenal and the third "analogically phenomenal." The first type of feature may be described as the animal's "qualitative properties," meaning such phenomena as colour, shape, smell, etc. The second type consists of *changes*, both in these qualitative properties and in the animal's relations with other objects. Such changes are described as "behaviour." The third type (excluded by mechanistic psychologies such as Reflexology and Behaviourism) may be described as "experience." This presents many peculiar difficulties but they are not insuperable unless we want them to be. For one animal (*e.g.*, a psychologist) to deny in other animals what he cannot fail to admit in himself leads logically straight to solipsism.

The study of properties alone takes us no further than physics. The study of properties and behaviour together takes us no further than biology. Psychology is distinguished from biology by reason of its acceptance of "experience" as a third phenomenal datum, albeit *analogical*. Thus there cannot be a parity between these three sciences. Physics, within its limits, is self-sufficient. Biology cannot dispense with physics. Psychology needs both biology and physics. Psychology is not merely the study of "experience" but of complexes of animal-events involving properties, behaviour, and experience, and the inter-relations of these three phenomena.

Requirements of Scientific Procedure

The development of a psychology which shall be both

systematic and empirical on the one hand, and both comprehensive and convincing on the other, must depend on its procedure meeting four requirements :

(*a*) it must be logically consistent ;
(*b*) its inferences must be verifiable and verified ;
(*c*) it must accept the full range of problems which come legitimately within its scope ;
(*d*) it must be able to justify itself at the bar of common sense.

This last is really a tautology, being in fact a definition of the word " convincing." But it needs saying.

The satisfaction of these requirements will not guarantee the *truth* of the system, but no science can secure a *guarantee* of its truth. But the *failure* to satisfy any or all of them would make probable its lack of truth. Now the first requirement depends on clarity of definition. If a system is obscure its logical consistency perforce remains in doubt. And whilst the inferences drawn by its author may be verified, we can never be certain that inferences drawn by others, whether verified or not, are valid deductions from the system, because of the obscurity. The authority of the master becomes a dogmatic necessity and this is the negation of science.

A systematic science owes its unity to two decisions :

(1) to observe within a defined range of phenomena ;
(2) to theorize within the implications of a single central concept.

These are, of course, arbitrary decisions, and for that reason the boundaries of any science are artificial. They are pragmatic decisions though not always recognized explicitly by workers in the field. When treated as dogmas they tend to preserve static limits, both in phenomena and in theory, and to hinder progress. Rightly used, however, they secure an orderly advance.

Physics has hitherto confined its data to the range of observable and measurable events, its enquiries being unified by the central concept of *energy*.

Biology restricts its data to phenomena associated with

enduring bodies displaying a set of characteristics known collectively as " life," its enquiries being unified by the central concept of *organism.*

The quarrels of psychologists arise largely from their failure to agree on the pragmatic decisions proper to psychology. The obscurity of individual psychological systems is frequently due to their failure to realize the need for these decisions, and sometimes to their flouting of the decisions when made. It is quite in order to seek to construct a science of Behaviour, for example, but if it excludes " consciousness " from its purview it has no right to deny the *occurrence* of consciousness, for this denial is a statement about something outside the range of its own central concept, on which it should remain silent.

Groundwork of the Revision

I have space only for a sketch of the revised principles which I should like to introduce to make good the deficiencies in Spearman's system. Whether they truly constitute a revision, or should be regarded as initiating a radically new system, others must judge. They certainly arose out of what I learned from Spearman but took shape as I came to apply his system in a field of practical investigation where both the value and the deficiencies of Noëgenesis became increasingly manifest. For purposes of identification, and to distinguish it from Noëgenesis I refer to it as the " Epistemic System."

First let me satisfy the above two requirements, but which comes first? In my view the second has priority because without a *central concept* we have no criterion by which to define our range of phenomena. And I shall be so banal as to describe the central concept of psychology as " mind." The concept of " mind " which I propose is this : " *mind* " *is the name for a system of events, within a single biography, all having a structural character such that each event can be put into some degree of correspondence with another event, the latter event being either within or outside the particular biography, and in some cases potential not actual.*

As an empirical fact some, but by no means all, of these events have the analogical character of " consciousness," *i.e.*, an observer having consciousness himself can, by analogy, reasonably attribute this character to mental events evidenced by others, with decreasing certainty as his biological type differs from theirs.

By " biography " I mean the life-span of a single organism. The central feature of this concept of " mind " is " representative structure " (involving, of course, *time* among its variables, *i.e.*, the structures are dynamic). The concept does not beg the question of the physiological basis, but neurological research progressively makes it evident that many, and perhaps all, events in the mind are also events in the nervous system. They thus have a dual structure. Physiological events *per se* have a *biochemical* structure which is characteristic of the events, *e.g.*, processes in the kidneys, but no *representative* character, *i.e.*, no structural correspondence with other events. But some physiological events can also *carry* a superposed structure, much as a wireless carrier-wave is modulated to carry a sound wave. In this way one and the same event can be both mental and physiological.

I shall call the relation of structural correspondence " the cognitive relation." When a mental event in an organism O is in structural correspondence with an event E we say briefly that " O *cognizes* E." The occurrence of this relation is a process which initiates the mental event. The latter, in general, persists, though with diminished intensity, and becomes an enduring feature of the biography. The initiation may or may not display the character of consciousness. When it does we may say that " O *knows* E." Thus I define " knowing " as " consciously cognizing."

" Structure " I define as a " coherent system of relations." It implies the existence of constituent events with definite characters coexisting in a pattern having a definite relational character. The above definition of " mind " has much in common with Herbert Spencer's definition of " intelligence " : " Regarded under every

variety of aspect, *intelligence* is found to consist in the establishment of correspondences between relations in the organism and relations in the environment, and the entire development of intelligence may be formulated as the progress of such correspondences in Space, in Time, in Speciality, in Generality, in Complexity." But my definition allows for correspondences between events both of which may be in the organism, so providing for introspection, memory," imaginative construction and the like. And " intelligence is too evaluative and tendencious a term to appear as a fundamental concept. (Nevertheless the complete oblivion into which Spencer's profound insights have lapsed is something of a tragedy. Spearman's system lacks a whole dimension by his neglect of these insights—not, of course, through ignorance, for he quotes Spencer, only to pass him over as having " feet of clay." But clay isn't a bad subsoil.)

Psychology, inasmuch as it deals with organisms and their relations with the environment, rests on biology. Inasmuch as it deals with the energy transformations involved in these processes, it rests on physics. But the characteristic phenomena which make it necessary to have a third science are those involving *representative structures.* These form the basis of all such specifically psychological problems as instinct, habit, skill, memory, intellect and the rest. To discuss these in detail would fill a volume. There are, however, three insistent issues which must be discussed, *viz.*, the qualities of consciousness and experience, the problem of the ego, and the causal relations.

However ingenious we are, I think " consciousness " must always remain an awkward phenomenon. But it is not coextensive with " mind " and its awkwardness need not therefore infect the whole of psychology. We can go ahead with a systematic development of psychology based on the structure-concept with every hope of a science as precise and articulated as are biology and physics. It may be that " consciousness " is the most important property which a mental event can achieve, that it is in fact the great facilitator of structural integration. Its qualitative nature would still

be somewhat baffling, at any rate until some new insight dawns. As regards "experience," I define this as "a mental event having some degree of consciousness." This makes Spearman's first law in part tautological. But in part it expresses the important fact that mental events frequently evoke other mental events. The well-known delay in hearing a clock strike when we are pre-occupied is thus a fully conscious event which structurally reproduces a less conscious event. I should likewise define an "intuition" as a conscious event which structurally reproduces an unconscious event. A tremendous amount of combination and integration of structural events must be in ceaseless progress. Only a few of these acquire consciousness.

As for the ego, I should define this as "a permanent process in the biography characterized by being the common constituent of *all* structural events in that biography." This definition accepts and generalizes the reference to the experiencer, *i.e.*, the "self" in Spearman's first Law. But further I should say that, in addition to its relation of structural inclusion, the Ego has in all probability a constant physiological basis (in the thalamic region) which gives it a *causal* relation perhaps with conscious processes only or perhaps with all mental processes. This is a matter not for definition but for investigation.

As a working hypothesis in psychological medicine, whatever our theories, causal relations between body and mind are taken to work both ways, and our personal experience seems to confirm this. Misery can make us physically ill. A cigarette can soothe our consciousness. The physico-psychic causation may be compared with noises in the loud-speaker caused by atmospheric interference with the carrier-wave. It is the psycho-physical causation which puzzles us. But why? The sound-wave which modulates the carrier-wave is in itself a causal interference with the latter. Mental structure is a modulation of physiological processes, on the structure theory.

The real problem, then, is not how mind can modify the body, for this modification is its very basis. The real problem is how these mental structures originate at all. This problem is not altogether unanswered. The answer lies in the evolution of the nervous system as a structure-begetting apparatus through which the organism comes to terms with its environment.

The Intimacy of Cognition

So much, briefly, for the distinctive psychological concepts of " mind," " consciousness," " experience " and the " ego." I shall now define a concept of " mental intimacy." This is *a sustained relation between an organism and its environment which emancipates the organism from the immediate consequences of Newton's Third Law that " action and reaction are equal and opposite.*" The intimacy occurs through *patterns* which are established and persist in the mind of the organism. It is rooted in a two-fold relationship On the one hand there are two-way interchanges of energy and material between organism and environment (light, heat, gravity, behaviour, air, food, excreta, etc.) which provide the physical foundation of the pattern of intimacy. On the other hand there is the continually fluctuating relation of *potential consequence*, depending on the fact that the survival and welfare of the organism are conditioned by the outcome of every such physical interchange. The organism has a measure of autonomy which, within limits, secures that the interchange is regulated in its interests. This depends on continual reference not merely to the present stimuli but to the accumulation of effects of past interchanges. Thus " intimacy " transcends the specious present.

Further, I define " empirical knowledge " as " a consciously established intimacy." " Intimacy " necessarily occurs right down the evolutionary scale, being a condition for life itself. " Knowledge " is largely confined to man and is in all probability referable to his superior brain. But

even in man the greater part of his mental transactions are patterns of unconscious intimacy. In general, his "knowledge" is expressible in verbal form. "Knowledge" is the product of "knowing."

I shall now distinguish four major types of intimacy as they occur in man. These will be called "types of epistemic status," and are indicated by the letters, P, O, N and I.

1. P-STATUS, or intimacy with *performance.* When an individual has developed a capacity for *acting* in a certain way in relation to his environment, an enduring mental *action-pattern* is established. Each such pattern constitutes a "P-item."

2. O-STATUS, or intimacy with *observable fact.* When an individual has experienced *features* or *properties* either of his environment or of himself, an enduring mental *percept on-pattern* is established. Each such pattern constitutes an "O-item."

3. N-STATUS, or intimacy with *names* and similar symbolic constructions. When an individual has acquired the capacity to use *linguistic substitutes* for other events or patterns, an enduring mental *language-pattern* is established. Each such pattern constitutes an "N-item."

4. I-STATUS, or intimacy with *ideational constructions.* When an individual has either initiated new symbolic patterns, or has apprehended such patterns constructed by others, an enduring *conceptual pattern* is established. Each such pattern constitutes an "I-item."

These four types of item constitute four major interpretations of the verb "to know," *e.g.*, "Do you know how to drive a car?"; "Do you know the flavour of pomegranates?"; "Do you know the name of that constellation?"; "Do you know the theory of Probability?" They do not *directly* cover "introspective knowledge" which requires different treatment. The *possibility* of introspective knowledge is covered by my definition of "mind." But I regard it as very different in character

from knowledge of the external world and do not apply the term "intimacy" to it. But intimacy can, of course, supply material for introspective knowledge, and can blend with it.

Physiologically each type makes *primary* use of a distinct region of the nervous system, but with considerable overlapping and much central integration. P-items draw mainly on the proprio-ceptive and effector neurones, O-items mainly on the extero-ceptive and entero-ceptive neurones, N-items mainly on the speech areas, and I-items on most of the cerebrum, especially the frontal lobes. These are not sharp distinctions. The real distinctions lie in the type of *intimacy-relation* which each represents. Each type has distinct structural characteristics. There are also subjective differences in the type of conscious quality, whenever this occurs.

Now what of *emotion*? Subjectively this is a type of conscious quality which may be manifested in *any* of the above four types of item. It is not a separate item. But it plays an extremely important rôle in the economy of the organism, and it, too, can be defined in terms of the intimacy relation. The above types of item come and go in accordance with the ever-changing internal and external patterns of events, but there is one condition which must always be fulfilled, *viz.*, the maintenance of the integrity of the organism. There must therefore be constantly at work a process which might be described as the "assessment of potential consequences." Whatever happens, within or without the organism, may be relevant to its welfare. We have here, then a "pattern of intimacy" of a very special kind, an "appreciation of significance." The *experience of emotion* I define as the qualitative aspect of this appreciation. It permeates, and, on occasion, over-rides the occurrence of the four particular types of intimacy. Like every other mental event it has a representative structure but is peculiar in that it represents a *potential* state of affairs, not in any mystical sense but by reference to life-consequences previously encountered by the individual or the species.

Emotion thus has a cognitive as well as a qualitative character. (I find this consonant with the views of Whitehead in " Process and Reality " though expressed in different language.)

Now the full biological perspective enables us to see these patterns of intimacy as following a natural order of development and this is important in giving a picture of mental structure. We are products of evolution living in an *evolved* environment. The relations between the protozoa and their environment were relatively simple. It was an environment of mechanical and chemical stimuli. Nutrition, advance, retreat, growth and asexual reproduction formed their repertoire. Lacking distance-receptors they had no experience of *objects* as such. Co-operation and enmity were unknown. With the advent of an organized nervous system, fighting, sex, and social life became possible. New and elaborate patterns of intimacy arose, becoming immensely more complex with the arrival of sight and hearing. Finally came language, tools, money and the technical organization of life which we call civilization. Every step has been achieved by minds capable of establishing new and more complex patterns of intimacy with *an environment itself rendered more complex by the evolved forms within it.*

The important feature of this concept is that all these patterns of intimacy can be objectively analysed and precisely described. We can therefore dispense with the mysterious " faculties " and their equally mysterious modern counterparts. We can express all the data in terms of properties, classes, propositions and relations. We can translate our problems into a single consistent language and see them as particular situations in our conceptual model. The model is a framework within which we confine our deductions, just as a model of the atom enables the spectra of its radiations to be deduced. The actual occurrence of events in the framework, their types and frequencies and correlations, are all matters for empirical investigation. I hope on another occasion to present the calculus in which these translations, deductions and verifications can be

carried out. I have confined myself here to a description of the conceptual features of the model, without as yet formalizing it as an axiom-system. I hope I have said enough to suggest that, on lines such as these, the revision of Spearman's Noëgenetic system may be carried through to success. In conclusion I should like to express grateful acknowledgement to the Rev. Professor A. Cock, who first suggested to me two years ago that the Epistemic System had sufficient solidity to merit the attention of the Aristotelian Society.

Meeting of the Aristotelian Society at 21 Bedford Square, London, W.C.1, on April 4th, 1949, at 7.30 p.m.

VIII.—ON SEMANTICS AND PHYSICS.

By ERNEST H. HUTTEN.

1. A physical theory may be regarded as consisting of two parts : the formal, partly mathematical, calculus and the interpretation in terms of experience. It was in his essay on "Geometry and Experience" that Einstein demonstrated — by the distinction of pure and physical geometry — the semantic character of physical theories. A semantic system is, then, a set of statements which is capable of describing a certain part of experience. While simple systems of pure semantics have been worked out, no attempt has been made as yet to construct an example of a descriptive semantic system. It is thus to physics to which we must turn as an actual specimen of a descriptive system, even although an imperfect one : for there exists no part of physics which is completely formalised so as to furnish a clear-cut model of such a system. But by analysing the theories of physics we can at least try to find out what the semantic rules are and how to construct a descriptive semantic system.

From the semantic viewpoint, the meaning of a sentence in the object-language is given through interpretation by a meta-language, and this permits us to formulate the rules we require to make our meaning more precise. In this manner the semantic method allows us to construct a deductive system, and it reduces the amount of non-formal thinking needed in giving the meaning of a sentence : we need not explicitly bring in observation and experiment which show that in fact the conditions exist which must be satisfied to make the sentence true. For evidence of this kind, that is, experience, naturally cannot be formalised. Of course it might appear that the method of semantics merely postpones this problem. If rules of meaning are

given as sentences relating two languages, it is obviously required that we know one language already, viz., the meta-language in relation to which the meaning of a sentence belonging to the object-langauge is given. We interpret an object-language, or a calculus, by means of a meta-language *assumed to be known*. But we can know the meta-language only if, previously, we have ascertained the meaning of at least some of its sentences by verification through experience. This is not a difficulty, that we must know a language in order to provide an interpretation for a formal calculus. It merely means that we must have, at least sometimes and to some limited extent, direct experience of the external world : it is the problem of perception, no more ; and it is solved as a problem, since we may take any language—not only a special percept language—as provisional basis for our knowledge. Thus we cannot really say that the method of semantics postpones the problem of perception ; it merely circumvents it, and for good reason. We have here an illustration how semantics differs from the traditional approach of epistemology : we need not search, desperately, for ultimate data or for hidden causes. We do not require a special, philosophical, theory of perception as distinct from a psychological theory ; all we need is a language expressing experience, and we must leave it to the psychologists to supply us with the facts which would decide what type of language to choose under the circumstances.

It is only in this manner that we can carry out a formalisation of an object-language and construct the language of science. And of course we do possess a meta-language which is suitable for most purposes : the language of every-day life. We are then able to construct artificial, abstract, technical languages on the basis, say, of ordinary English ; and this is the normal procedure. This does not mean that ordinary English is the basic language, of necessity ; it is merely a natural starting-point. If there are other languages which we know equally well in terms of experience we can make use of them : indeed it is occasionally useful to employ as meta-language a more

abstract language when we wish to develop a scientific language system. Our present scientific theories provide examples for both procedures.

There is no one-one correspondence between calculus and interpretation ; in physics we can construct various semantic systems for the same field of experience. Or, we can give different interpretations for the same formal calculus, we can have several languages describing the same world ; and we can give the same interpretation to two or more calculi. That is, the same set of mathematical equations may be used to describe many different physical events ; and one and the same physical situation may be represented by alternative mathematical structures.

But what do we understand by the term " interpretation " ? It is usually said that the system of physical geometry arises from the calculus of pure geometry by interpretation. The primitive terms and the axioms of the set are correlated to certain physical objects and situations by giving co-ordinative definitions : the mathematical point is co-ordinated to the physical point, the mathematical straight line to a physical straight edge, and so on. However, the procedure is not quite so simple as it appears at first sight : two steps intervene before the realm of physical things is reached.

For the co-ordination is made between two languages. The co-ordinative definition relates the concept of mathematical length to the concept of physical length ; and " physical length " is not something immediately given, but it is a term of a definite language, in this instance the language of mechanics. It presupposes other definitions specifying, for example, the unit, uniformity, and congruence of the length measure ; and these definitions, in turn, rest upon the definition of " rigid body." That is, a whole language system is presupposed, a meta-language in terms of which the mathematical calculus is interpreted. Ultimately, it is true, the terms of a language must be defined by relation to experience, that is, by ostensive definitions. It is only in this way that we can bridge the gap between formal calculus and experience ; in practice,

we hardly ever need go back to this last step of ostensive definitions. For in the language of every-day life, or to some extent at least in the language of Newtonian physics, we have a meta-language which is known to us directly in terms of experience ; and we can use it as a basis for other semantic systems.

But definitions alone do not suffice to provide an interpretation. To define individual terms either by terms of another language (by co-ordinative definitions) or by reference to actual experience (by ostensive definitions) is not enough to show us how to use these terms. Indeed, when we construct a semantic system we tacitly presuppose much more. We select a definite set of phenomena, an actual or a hypothetical universe which shows us by experience how to use the terms for the adequate description of the events ; or, we assume a universe of discourse as given by common sense : that is we have rules to guide us for the correct application of the terms.

Apart from definitions we require rules ; definitions establish names only ; but we wish to do more than mere naming, we want to describe the world. We make a " model of reality " which shows these rules ; and when we construct a semantic system we must try to make these semantic rules more explicit.

It is because we require rules in order to have a language that we must say that rules of meaning are given by a relation between two languages and that interpretation is in terms of a meta-language. For rules are sentences which relate words to one another : we cannot have rules which correlate a word to an experience. We may have practical procedures within a given language which we acquire when we learn a language : whenever we experience a certain situation, we utter certain words or sentences. But this is a matter of psychology, and of social custom perhaps : it cannot be formalised in a rule, since experience is not subject to any rule ; only language can be made to follow rules. Thus it is incorrect to speak of " non-formal rules " as if we could attach words to experience by an invariable connexion. While the mis-

take of forgetting the difference between use and mention of a word has led philosophers to deny the extra-linguistic reference of semantic rules, failure of distinguishing designation and reference has led to the assumption that, say, the rule of designation holds between a word and a thing. And if someone asks : " How do we know the language we use as meta-language for interpretation, say, ordinary English, which we use as direct expression of experience ? " the answer is clear. It is a fact that we know it ; and it is not our business to find out how the human species ever succeeded in developing language at all : this is a task for the psychologist. If we were to do so we should be confusing the genesis of language with the analysis of language, and with the construction of special language systems.

We can now state what we understand by an interpretation. It is provided by a meta-language ; and the meta-language must contain rules which relate the words or sentences of the object-language to the terms of the meta-language. According to Carnap's terminology (which is the only one available at present) we first require rules of formation which constitute the definition of " sentence " within the system. Then we have rules of designation for the descriptive constants ; in this manner the individual constants and predicates are connected to the known terms of the meta-language. Further we require rules of range which restrict the meaning of the object-terms, so that we can make it more precise ; they prescribe the universe for which a particular sentence holds. Since the meta-language is richer than the object-language, we must specify which range of possible states of affairs we wish to cover, which field of experience we want to describe. We may arrange the sentences into a conjunction (or into a class, when we have an infinite language system) which contains, for every atomic sentence, either this sentence or its negation, but not both : such a conjunction is a state-description, since it represents a possible state of the universe for all the individuals and their properties. And the rules of range determine

the class of state-descriptions for which a given sentence holds ; thus they give the meaning of the sentence by stating in which of the possible cases it would be true ; and in this way we know the kind of universe expressed by the predicates of our system. Alternatively, or together with the rules of range, we have rules of truth to state under which conditions a separate sentence of the system can be verified. Whether or not these conditions obtain in a specific example is, of course, no longer a matter of rules; and it is by observation and experiment alone that we can find this out. It is only by such means that the factual content of a descriptive semantic system is established.

2. Unfortunately, physical theories are not presented in a sufficiently axiomatised form, as explicit semantic systems ; they are usually only " mathematised," and we have to consider the context in which the equations occur. And just as the grammar of ordinary language is a combination of both syntactic and semantic rules, so certain statements and equations of physics function in this dual capacity : and it becomes necessary to separate them so that we can determine the empirical meaning of a theory.

It is for this reason that we usually think " in pictures " —that is that we construct concrete representations, definite models to explain our theories. A model is a possible semantic interpretation ; it is a picture of a situation which shows the semantic rules but does not state them explicitly : it represents a semantic system in its simplest, rudimentary form.

Usually, it is too simple a semantic system ; since the model is not explicitly formalised, since often it is not even verbally formulated, it may create confusion. We habitually think in models ; but when we wish to apply our symbols, we must be clear about the rules according to which we may manipulate the model, and of its limitations. If these limitations are forgotten, then puzzles are created, pseudo-questions which do not allow an answer : we must avoid the dangers that thinking by the help of models brings with it.

The model often arises from the simplest experience in the description of which the term in question occurs ; in this way it prescribes implicitly the semantic rules for the usage of the term. But ordinary language—burdened with many associations of a psychological and historical kind—provides various possible interpretations for our terms and concepts. It conjures up pictures of one kind or another, and it suggests analogies representing a possible meaning of the term commonly due to its usage in everyday experience. For instance, when we say that time flows, the predicate suggests semantic rules which commit us to a theory of absolute time.

Models are often diffuse and variable. In general they need not be visual, but we prefer them to be iconic representations of a situation. A model is given by the symbol, together with its usage ; it prescribes a possible universe ; and in this manner the meaning of the symbol is made clear, and how it may be applied. Thus, the symbol, or set of symbols, of the model are rarely iconic : but how they function in the description of the world is often shown by giving a picture. The picture invokes an experience and, thus, illustrates how the thing designated by the term functions in the situation experienced : it shows the semantic rules for the usage of the term in our language. The mechanistic picture of colliding billiard balls shows how to use the term " molecule " in kinetic theory ; or the " thought experiment " of the X-ray microscope shows how to apply the Uncertainty Relations to electrons and photons ; and so on. And sometimes models are merely schemata, logical pictures—prescriptions how to use the word. But in every case they guide the use of the terms in our description, they provide an interpretation, even although we may be unable to give an explicit formulation to the semantic rules.

Since models are vague and elusive in ordinary language, we may find it useful to analyse scientific discourse from this viewpoint. For it is well-known how important a rôle models play in the construction of a physical theory. By analysing the function of models it might be possible to

state, at least in outline, what some of the rules are which are required to furnish an adequate semantic description of nature. And this is necessary in order to prepare the way for a possible formalisation of physics.

3. Models occur in physical theory, both explicitly and implicitly, and they are of many different types. Ever since the beginning of modern physics, with Newtonian mechanics, mechanical models have been constructed to facilitate understanding. And until recently Lord Kelvin's dictum was widely accepted that physics can be understood only in terms of simple models which, if need be, could be actually put together by means of string and cardboard ; and this physical model was taken as concrete representation of the semantic model. In the nineteenth century many such models were invented : it was the age of " mechanistic physics."

The theory of light is a well-known example ; indeed, it illustrates certain aspects of semantic models. The concept of wave is derived originally on the basis of observations on elastic waves, waves which require a medium to carry them : it is a mechanical model. When wave theory was applied to light, an ether was postulated in order to have a medium of which " to predicate undulation." But the limitation of this mechanical model created difficulties when the application to electromagnetic phenomena was considered ; thus the concept of wave had to be re-defined. In mechanics " wave " is interpreted by a picture of a medium in motion, a medium which is made up of particles ; the geometrical shape of the medium, the displacement of the particles at any instant is what characterises the wave concept. In Maxwell's theory the particles have disappeared, and energy remains as a characteristic of the process ; we have an energy wave, a wave field. Finally, the so-called matter-waves in quantum mechanics turn out to be still more abstract ; and all that has remained of the original wave model is a statistical distribution.

On the one hand, it was only by overcoming the limitations of the original model that physics has been able

to develop. But on the other hand some semblance of the original concept is retained. And, in this example, the resemblance is furnished by a mathematical equation, the wave equation. The model is not given up entirely—it is re-designed and, thus, refined in accordance with the requirements of new observations and of a wider application. It means that the semantic rules are changed in a definite manner ; the alteration in the model shows the change in the rules, and this provides a hint as to what the rules are and how they function. It is not merely a process of abstraction since there is an infinite number of ways in which a model can be made more abstract : we have to know what to abstract and how, so that we can still have a serviceable model. That it is the energy, and not some other characteristic, that we keep in Maxwell's theory, or that it is a probability distribution in quantum mechanics which is left behind as interpretation, is of importance. Moreover, the wave equation—as all mathematical formulae in physics—is not a statement of pure, uninterpreted mathematics : it is at least a non-visual model, a schema ; and the application of the equation rests upon this interpretation.

By recasting the model we have obtained a minimum interpretation which is capable of linking theory to experience. It is therefore from physics that we can learn how to make use of models but also how to avoid their misuse. For in physics a definite method has been worked out which enables us to apply theory to experiment ; and this is formulated in the Correspondence Principle first stated by Bohr.

4. When we look at the development of physical theories we see that successive theories usually increase in abstractness and generality ; we see also that each new theory is based upon the previous, well-confirmed and accepted, theory. The theories follow each other in a series of successive approximations ; and the new theory represents a better approximation, a more detailed and a more accurate description of the phenomena.

This is not because—as has sometimes been alleged—we are in the process of " learning more and more about less and less." Or, to express it more prosaically, that the phenomena described in the new theory are, so to speak, the actual constituents of the grosser phenomena described by the older theory. At first sight it might appear to be relevant that the description of the macroscopic behaviour of larger pieces of matter in mechanics is replaced by the description of the microscopic behaviour of molecules in kinetic theory ; that this theory, in turn, is replaced by the description of still smaller pieces of matter in atomic theory ; and that atoms, finally, are analysed in terms of elementary particles—at which point we seem to have reached a temporary halt in the physics of to-day.

The mistake involved in such a view is, of course, that we seem to imply that we have " explained the nature of matter " by reducing it to its ultimate constituents ; *that we confuse the physical and chemical analysis of matter with the semantic analysis of the language describing material things.* In fact, what we do is to describe experience in more detailed terms—to link one theory, one description to another in the way in which a higher approximation is based upon the previous one. It is a matter of description ; the more detailed analysis of concepts rests upon a less analysed, a less abstract concept : we construct a more adequate semantic system.

The succession of theories from the macroscopic to the microscopic domain is a sequence towards higher approximations ; but the succession from the macroscopic description of Newtonian mechanics to the megaloscopic description of relativity theory is equally such a sequence. That is, it is wrong to believe that we obtain a more detailed description only when we pass to the description of phenomena in terms of smaller size. Exactly the opposite holds for relativity theory ; for it contains Newtonian mechanics as a first approximation, but it describes phenomena in terms of larger physical size.

Rather, it is in the following way that we make use of semantic systems. We have simple models reflecting the

simplest experience ; but they do not suffice to describe a more complex and complete experience ; we create a new theory by changing the model so that a more accurate description becomes possible, and a new semantic system is obtained. The new system is related, however, to direct, simple experience whence it arose ; and it is by virtue of this relation that we are enabled to apply the more abstract theory and to understand the new concepts.

The development of quantum theory brought to light this fundamental feature of theory construction. Even the older theory (in the formulation of Bohr) is so abstract that it cannot be understood except in terms of a simple model ; no computations can be carried out otherwise—and, indeed, it is the value of the model that it permits us to set up equations and to derive formulae. The atom is interpreted, for example, " as a small mechanical system which resembles in certain main features our own solar system." This so-called planetary model establishes the link to mechanics, and hence to simple experience.

The Correspondence Principle formulates the condition which the new theory has to satisfy ; and it shows how to construct an abstract and more accurate semantic system on the basis of a simpler system, of a model. And the condition is : *that there must be an asymptotic agreement between the new and the old theory.* The new theory (the new semantic system) reduces to the old one for a special case in which the refinement introduced by the new theory can be disregarded. Or, the new system contains the calculus of the previous system as a special sub-calculus. For example, the formulae describing the Bohr atom have to become identical with those of the mechanical model for the limiting case in which the quantum of action—the concept introduced by the new theory—may be neglected. In a similar manner, the formulae for the probability distribution of a quantum-mechanical particle reduce to the equations of motion for a mechanical particle. This is accomplished by the procedure that certain mathematical formulae of the new theory pass, in the limiting case, into known formulae of the old theory. It is in this way that

the equations of quantum mechanics, for instance, are given a partial interpretation ; the new concepts represent a rational generalisation of the old concepts ; and the formulae of the new theory, although abstract and mathematical, can be made to link up with experience. We have reached a higher approximation, and we have achieved a more accurate description of nature. It is true that the visual model has to be abandoned, ultimately ; but it is used as a stepping-stone for the interpretation of the more advanced semantic system. The new theory reduces to the old theory for the limiting case in which the old theory alone has proved to be sufficient ; and in this way we have overcome the limitations of the previous theory.

The new system does not contain directly and explicitly the simpler semantic system, it reduces to it only under special conditions. Let C—S represent any semantic system indicating its two parts, the calculus C and the set of semantic rules S ; and let us distinguish two systems by subscripts. The more advanced system C_2—S_2 reduces to the simpler system C_1—S_1 if C_1 equals C_2 for a special case. The main formulae of the one calculus (involving a " key concept," that is, a principal descriptive constant) pass into the formulae of the other calculus ; but in this way the two sets of rules S_1 and S_2 become related. And this is necessary since S_2 is abstract and does not refer directly to experience. By this partial re-interpretation in terms of the system S_1 we have found a meaning of S_2 and, thus, we are able to apply the new theory. We have replaced the first, inadequate, theory by a new theory which, although its concepts are removed from ordinary experience, has now obtained a meaning which can be put to the test of experience.

Following the terminology for semantic systems which has been proposed by Carnap we may say that an interpretation is true if the semantic rules of S are in accordance with the syntactic rules of C ; that is, every theorem which is logically true in C (or provable) becomes semantically true in S. We see, then, that one of the functions the

Correspondence Principle fulfils is to ensure that the new theory is a true interpretation, from the semantic point of view ; and it is because the theories involved are true interpretations of their respective calculi that the asymptotic agreement of the two calculi C_1 and C_2 connects the two languages S_1 and S_2.

But the Correspondence Principle achieves two more tasks necessary for the construction of a physical theory. When we invent a calculus for physics, we must restrict its possible interpretations ; for a calculus can be interpreted, in general, in an indefinite number of ways. Since the principle states that the new theory must contain the old theory as a special case, it prescribes the conditions the new calculus must satisfy ; and the possibilities for the construction of new theories are curtailed in this manner. Finally, the Correspondence Principle safeguards the relation to simple experience. For the modern theories do not lead directly to experience: the intervention of the simpler theories of classical physics is required. Bohr describes the procedure by saying that "it lies in the nature of physical observation . . . that all experience must ultimately be in terms of classical physics." Or, all human experience is in the medium-sized domain and measurements are carried out by means of instruments that follow classical physics. Of course, classical physics is somewhat more abstract than the simple commonsense theory about the world which underlies ordinary language. However, its interpretation is still close enough to common sense for this condition of direct experience to be satisfied. (The concept of force, however, may serve as example to remind us how common sense usage differs from Newtonian mechanics.) That is to say, we have learned to think in terms of classical physics ; we have trained our imagination, our psychological abilities, so that the classical concepts have become immediate and customary forms of experience. The Correspondence Principle expresses the condition that, in the last resort, we must interpret our theories in terms of a language which is directly known to us.

But at the same time the Correspondence Principle shows up the limitations of the simple, original theory and thus clarifies the semantic rules used. By the change in the semantic rules we are made aware what the conditions are under which the simpler theory may be applied, so that we can avoid the confusion attending misapplication. It is in this way that we can free ourselves from the limitations of the model and set up a more explicit, even if more abstract, semantic system.

In science the semantic type of a language is given by the principal descriptive sign : the key concept in terms of which the model is represented. The particle model in classical mechanics, for instance, ascribes a definite position p and momentum q to the particle, and its path is determined by any set of simultaneous values p, q. In quantum mechanics a particle is supposed to occupy a certain state of given energy, and we cannot speak of the path of the particle since there are no statements in which simultaneous and exact values of p, q may occur. This indicates a change in the rules of formation for the sentences to be admitted to the system. Moreover, what we call " particle " in quantum mechanics is not quite the same thing as the particle in classical theory ; this is shown by their difference in behaviour, and it indicates a change in the rules of designation. Finally, the universe of discourse for which quantum-mechanical theory holds differs from that of classical theory : it shows that the rules of range are changed. In each case different semantic rules are invoked. Unfortunately we cannot give the rules in an explicit form, but we can show them by giving a model.

The more abstract model of quantum mechanics becomes intelligible since it can be made to coincide partially with the classical model which is directly related to ordinary experience. By the asymptotic agreement of the two calculi the abstract concept of stationary state, for instance, is shown to correspond partially to the classical concept of orbit : and the change in model, the difference in semantic rules, is demonstrated by the partial re-interpretation. We have a multiple interpretation of our

observation sentences. Usually, the observation sentences belong to ordinary language : they speak about pointer readings, and so on. The new theory interprets them in terms of electrons, say, or of probability distributions. But these terms are not directly known to us ; thus we must provide another, partial, interpretation for these abstract terms so that we can make use of our observation sentences. In order to understand and to apply the new theory we must give it, at least to some extent, another interpretation in terms of what we know ; and the asymptotic character ensures that the known interpretation does not limit the advance in refinement which the new theory has provided.

5. The analysis of the language of science is of importance for its own sake ; but it increases in general interest since from the difficulties of scientific discourse we can learn how to clarify everyday language.

A natural language is often said to be, in some sense, an open language ; it is for this reason that it is so flexible ; but it is for the same reason that it so easily leads us astray. For, in fact, a natural language is semantically closed, as was first shown by Tarski ; it contains, in addition to its expressions, also the names of these expressions, as well as semantic terms such as " true " referring to sentences of this language ; at the same time we assume that the laws of ordinary logic hold. This shows the inconsistency of a natural language, since it permits the construction of semantic paradoxes such as that of the " liar." Thus we are forced to invent some means to make our language a more reliable instrument for describing the world.

The semantic analysis of science shows that it is the construction of artificial language systems which can provide this instrument. Just as we invent, say, optical instruments to catch experience in more detail, thus we invent linguistic instruments : a language system is constructed for a special field, for a specific purpose. Ordinary language may be considered, then, to be made up of different semantic systems ; or, more often, they are rudimentary systems, that is, models. And the models we are using in colloquial language are, unfortunately, not as

distinct and definite as the models of physics ; yet essentially the same method must be followed when we wish to analyse ordinary language. For many sentences in ordinary discourse do not directly express experience but their meaning is given by reference to a model, by interpretation of a special sort ; and a difference about the meaning of a sentence may indicate a difference in the model tacitly presupposed. Such models arise from simple experience and reflect the crude attempts at understanding the world. They often are part of the simplest, and most insufficient kind of, language which, thus, is used to interpret a somewhat more complex and detailed experience. In this manner models carry surplus meaning which seriously impedes the improvement of knowledge.

But since they are " pictures " of experience, the models are not formalised ; they suggest experience ; they show the semantic rules but they do not state them. The model exhibits what cannot be said, what can only be shown ; and one of the functions of the model is to show what is pointed to in experience ; it brings out the ineffable character of experience and suggests what it feels like to have the experience, by an analogy to the experience standardised in the model. In this manner models may help in giving expression to non-cognitive meaning, that is, they appeal to feeling and emotion ; and they may produce understanding even when verbal communication or cognitive meaning fail. But this usage of a model depends on vague associations, and it is never a reliable interpretation which is achieved in this way. It may be one reason why we can be said to understand music and poetry : but, as Mill said, it may be " grand imagery but bad philosophy."

The opponents of semantical analysis base their arguments upon the fact that this fringe of meaning is cut off when explicit semantic rules are established. But it is forgotten that models, too, are semantic systems, though poor ones : whenever there is meaning, there is a model at least, or a semantic system. And any natural language is a mixture of many different semantic systems, of an enormous variety

of models ; in fact, we continually invent new ones when we try to make clear the meaning of our sentences. By giving examples to show how to use a term we specify a model : the sample sentence whose grammar or interpretation tells us some of the syntactic or semantic rules we must employ if we wish to apply the word correctly. And we narrow down our meaning by overlapping models and, finally, by an explicit system perhaps, so that the domain of meaning, the logical range, is cut down, while the logical content is increased. The model shows the rules without stating them ; and this creates the illusion that we need not follow the semantic method in colloquial language.

It is often asserted that we seem to put language into a strait-jacket by constructing an artificial language system. For a natural language is not formalised—and no definite rules can be given which determine the sense of words and the meaning of sentences. Or, the rules are implicit in usage, they vary from one context to another, and they cannot be formulated explicitly.

Of course, since the meaning of a sentence (strictly speaking) depends upon the whole set of rules, a natural language can never be made precise ; and we know in any event that it is not precise enough for scientific purposes : it is inconsistent from the semantic viewpoint. It is just for this reason that scientific practice leads the way in constructing artificial languages : in this manner meanings can be made precise within a certain context. We may readily agree that a given semantic system need not exhaust the many senses in which a word is used in ordinary language. But communication would be impossible unless there is a nuclear domain of meaning for a term, and usually we accept the colloquial meaning, for this purpose. This domain may shade off, and we do not wish to lose any of its possible shades of meaning. But in order to make the sense of our words precise for a specific purpose, within a definite context, we require rules. Thus, in everyday communication we elucidate the meaning of our sentences by giving examples ; and there is a never-ending

series of examples. In the end we must make a choice ; this does not mean that the sense thus selected is the only possible one, or that the system chosen is absolute and must never be changed, or that no other system including the particular term may be constructed. It means that we concentrated on the " hard core " of the term ; the rules of the system give a precise meaning to it ; and the system is justified by its success.

The semantic method represents the logical reconstruction of science ; and it permits us to make clear the meaning of our sentences, even for everyday language. Thus we construct language systems, instead of using a natural language ; but the use of a non-formalised language —say, ordinary English—is not therefore forbidden. In everyday life vagueness and ambiguity is often an asset ; after all, language is not used merely for the purpose of describing the world ; it has not as its only aim to convey cognitive meaning. But in science we make our language precise by constructing a semantic system for a specific purpose. In this manner we can learn how the rules of language—implicit even in natural language although they cannot be clearly formulated—give the meaning of our sentences, and thus avoid misunderstanding and paradoxes.

Meeting of the Aristotelian Society at 21, Bedford Square, London, W.C.1, on April 25th, 1949, at 7.30 p.m.

IX—TRUE AND FALSE IN MORALS

By J. D. MABBOTT.

1.—*Moral Judgment and Moral Action.*

I PROPOSE to examine the question whether moral judgments can be true or false. It may be held that the formulation and pronouncement of moral judgments is a derivative and secondary activity in moral life. The primary business of a moral agent is moral action. It is only when moral conduct is difficult or moral choice perplexing that I find myself formulating, in regard to my own conduct, such sentences as "I ought to do this" or "it would be right to do that." It is seldom that I find myself called on to formulate "you ought" sentences—*i.e.*, to tell other people what is right or what to do, and still more seldom that I have to frame "he ought" sentences—*i.e.*, to pronounce verdicts on the actions of third parties. Most of my moral life would seem to go along without any formulation of moral judgments at all.

A cricketer seldom has to formulate cricket judgments. He may, when in some doubt, look round the field and say to himself, "If a fast one comes down, the best shot would be one through the covers." If he is a coach he will have to frame "you ought" cricket judgments; if he is a newspaper critic or a selector, he may have to frame "he ought" or similar third-person cricket judgments. But the best players seem to play without hesitation and doubt; and few cricketers are coaches, and fewer still are critics or selectors. So cricket judgments are a small and unessential feature in the life of a good cricketer.

Now I think the old-fashioned answer to this would be as follows. The good cricketer plays intelligently. He is fully aware of the state of the pitch and the nature of the bowling and the position of the fielders. When he plays the fast bowler through the covers it is no fluke or blind

chance or inspired intuition. He plays " with concentration." His shot is the result of rapid observation and rapid thinking. He does not *say* to himself, " The best shot is through the covers " but he is thinking this all the same as he shapes for it and plays it. Similarly in morals, what differentiates moral choice from accident or sheer habit or blind " swiping " is that the agent is conscious and awake to the moral factors of the situation. Thus the moral judgment " I ought to do so and so " (even if not actually pronounced in a noisy or a muttering way) accompanies my doing so and so.

Professor Ryle, to whom I owe the points I have tried to make in my cricket analogy, has given good reasons for doubting whether in general an intelligent action or a conscious action can be analysed into two parallel occurrences, thinking and action, or consciousness and action. " Intelligent action " describes a way of acting not the addition of an extra kind of acting, viz., thinking.[1] So a moral action,—*e.g.*, the action of helping someone in distress,—does not consist of two concurrent actions, the believing that I ought to help him and the helping him.

I do not feel wholly convinced by this attempt to eliminate moral judgment from moral action. But I would meet those who are convinced by it as follows. Even on this view that moral judgments are rare, derivative and secondary, still they do occur and the question about them is whether they are true or false. But this is really only a part, or (if you like) a corollary of the wider question of objectivity versus subjectivity in ethics ; and this problem does not disappear when we turn from moral judgment to moral choice or moral action, even if we hold that moral judgment is not a constituent part of such choice or action. For a moral choice may be held to be right or wrong, a moral decision good or bad. Subjectivists will say that the " rightness " of a choice or the " goodness " of a decision is no more than the expression of the feelings or attitudes of those who use these terms. Objectivists will maintain that

[1] Knowing How and Knowing That. (*Proceedings*, 1945–6.)

this rightness or goodness belongs to choices or decisions independently of the moral feelings or attitudes of those who use the terms. The way in which the problem remains even when we move from judgment to action can be seen in a criticism of Dr. Ewing by Professor Barnes. Dr. Ewing had written " When I try to decide what I ought to do in a given case I am conscious of trying to *find out something*, not merely of resolving or wanting to do something, and ' to try to find something out ' is to try to discover what is true about it."[1] Professor Barnes comments on this that to try to find out something is not necessarily to try to find out what is true about it. " If I try to find my way out of a cave, I am trying to do something, viz., to get out of the cave, not to discover what is true about the cave, though no doubt I shall discover in the process a good many things that are true."[2] Similarly, if I am trying to find what move to make at chess or what card to play in bridge, making the right move, playing the right card are not propositions but actions. Nevertheless, the way I take out of the cave is not made the right way out by my choosing it or approving it or resolving to take it. And the move I make or the card I play are called " right " because of their relations to the situation independently of the fact that I have chosen or approved them.

Thus I think I can put my problem in terms which would satisfy Professor Ryle. If moral judgments are secondary and derivative, the question whether they can be true or false depends on the question whether moral choices can be right or wrong, or moral decisions, rules, prescriptions, or what not, good or bad. (In the same way the question whether the critics' statements that Jones played a good stroke can be true or false depends on the question whether the badness of a stroke is independent of the preferences or decisions of the man who plays it.)

So I return to moral judgment. When a man judges, approves, or praises, does it make sense to say his judgment

[1] *Mind*, 1944, p. 123.
[2] *Proceedings*, Supplementary Vol. XXII, p. 24 note.

is true, his approval justified, his praise merited by some moral feature of the situation, excluding his judgment, approval or praise? In the answer to this question lies the main dividing line between moral theories. "Yes" would be the answer given by utilitarianism or any other naturalistic theory, by intuitionism, or a coherence theory. "No" would come from subjectivists, who hold that moral judgments are expressions of desires, wishes, emotions, feelings, attitudes, decisions, orders, prescriptions, rules, etc. Subjectivist theories are popular at present for two reasons, first because objectivist theories have failed to formulate any convincing definition or criterion of good or right, second because objectivist epistemology is suspect, since it seems to involve priori synthetic propositions, or a direct intuition of non-natural qualities, or some equivalent horror. In addition to these up-to-the-minute objections, there are the old and well-worn arguments for subjectivism, that moral standards vary with time and place, that they are instilled by non-rational educative processes, and that it is impossible to bring evidence for or against a fundamental moral principle or to argue anybody out of or into one.

2.—*Subjectivism is not Analysis.*

Subjectivist theories maintain that when I say "X is good" or "Y is right," I am either saying or expressing or evincing something about myself and nothing moral about X or Y. When Mr. Churchill called Hitler "that bad man" anyone who really understood the situation would see that he was not describing Hitler, but was describing or expressing something about himself. And when Dr. Goebbels indignantly replied that Hitler was not a bad man, he also was saying nothing about Hitler but describing or revealing himself. Thus, *no matter what sort of a man Hitler was*, both Mr. Churchill and Dr. Goebbels were fully and equally justified in what they said. For what they meant to assert or express was something wholly independent of any facts about Hitler.

The extremist form of subjectivism maintains that such an account of Mr. Churchill's statement is an analysis of

it or states its meaning. The analysis of a statement is presumably what we mean when we use it or perhaps what we shall accept as being what we mean when we see the matter more clearly and confusions are removed. For anyone to accept as an analysis of his statement, another statement which is not evidently or verbally equivalent to it, he must see the pitfalls of his original expression—the vagueness or ambiguity or misleading implications to which it might give rise. He must see just why the new formulation is proposed and that it does say more clearly and exactly just what he was trying to say.

Now I must here maintain dogmatically that no user of an ethical sentence would accept a subjectivist formulation as an analysis of it. It is no question of his original statement being muddled or misleading. In fact, as I shall try to show later, the the boot is on the other leg ; it is only as a result of confusion and muddle that a subjectivist theory can be accepted as an analysis of a moral judgment. The more clearly you got any ordinary man to see the meaning and implications of subjectivism, the more emphatically he would reject it as being an account of what he meant to say. Imagine yourself trying to convince Mr. Churchill that when he said " that bad man " he was attributing no moral characteristic to Hitler and that he was in no way contradicting Dr. Goebbels.

It is not clear whether C. L. Stevenson holds that subjection is an analysis of moral judgments. (Stevenson is the only philosopher of the new subjectivist school who has dealt with moral experiences on its merits and at full length. Accordingly I have had to use his views frequently throughout this paper to illustrate the difficulties of subjectivism.) Stevenson admits that the ordinary man claims objectivity for his moral judgments. But he asks " When the confusions of belief and attitude were cleared away, and when psychological mechanisms which these confusions have fostered were accordingly re-adjusted, would people then feel that some more objective criterion is required ? "[1] This seems to mean that ordinary people do hold an objective view but that Stevenson believes he

[1] *Ethics and Language*, p. 31.

could re-adjust their psychological mechanisms so that they would give it up. He is on the way to the view of J. O. Wisdom[1] that the correct analysis of ordinary moral beliefs is objectivist, but that psychoanalysis of those who entertain them could substitute subjectivist beliefs for them, as it can cure people of a belief that they are being persecuted.

Why have subjectivist theories been accepted as analyses of moral judgments? First, because language can be used for a great variety of purposes and the same sentence in different circumstances can evince many different psychological states. Thus, no matter what subjective state you choose as *the* psychical state which moral judgments evince, you can always find some moral judgments which do evince it. But this is not peculiar to moral judgments. I might hold that judgments concerning spatial location are really commands. Does this sound wild? But the sentence "There is the door" may be one command and the sentence "Here is your castor oil" another. The second reason why subjectivists have been able to claim that subjectivism gives an analysis of the meaning of moral judgments is that, here as everywhere else, they have confused the meaning of a sentence with its truth, or the evidence for it, or the purpose for which it is used, or the psychological states for whose existence its utterance is evidence. I now illustrate these two points.

Ethical sentences often evince the state of mind of the speaker and may sometimes be intended to do this job. Ethical sentences often alter the attitudes or feelings or actions of a hearer and may sometimes be intended to do this job. Thus a given ethical sentence may do both these jobs (though it is doubtful whether it can be intended to do both). But to take either of those functions (or both together as Stevenson does) as the defining characteristic of ethical sentences is to commit both the possible sins of a bad definition. These two features, or either of them, do not characterise all ethical sentences; and they both characterise many non-ethical sentences. Ethical sen-

[1] *Proceedings*, 1935–6, p. 76.

tences which are insincere neither evince nor describe the feelings or attitudes of the speaker. But that does not affect their meaning. " Hitler was a villain " means the same whether said by Mr. Churchill or by an unrepentant Nazi trying to deceive a denazification tribunal. Similarly there are many ethical sentences which do not order or persuade a hearer to do or feel anything. Sentences of the form " you ought " may be held to perform this persuasive function, but those of the form " I ought " or " he ought " do not.

Stevenson attempts to deal with " I ought." He admits (with apologies) that, up to a late stage in his book, his treatment has " emphasized the interpersonal aspects of ethics " (p. 130), because these aspects " illustrate better than the personal ones the degree to which a proper understanding of ethics involves a proper understanding of language " (p. 134). (I fear this means that these aspects alone corroborate his theory that ethical sentences are hortative or persuasive.) He then goes on to treat " I ought "—or " this is good " when used by me in private—as self-exhortation or self-persuasion, as " a kind of auto-suggestion " (p. 148). But the persuasion which he has previously attributed to moral judgments is a persuasion to change an attitude or to acquire an attitude previously lacking. And self-exhortation, self-persuasion, and auto-suggestion are never this. These activities always attempt either to persuade myself to *do* what I already approve (or, as I should say, what I judge to be right) or to strengthen the power of my approval. Stevenson is right in saying that self-exhortation occurs only in cases of conflict and in the attempt to resolve conflict. But he mistakes the nature of the conflict in question. I may be undecided as to which of two courses is my duty or which of two results is the better. The use of " I ought " or " this is good " cannot assist in the resolution of this conflict or determine its results. Here " I ought " or " this is good " expresses only the solution of the conflict and occurs when it is over. The conflict in which they act as " persuasives " is that between duty and inclination. The undergraduates who used to hear their provost, standing by his cold bath,

saying " Be a man, Phelps ! " realized that the provost's pro-attitude to cold baths was not in doubt. What was in doubt was his action not his approval. It is, of course, a plain contradiction in terms to say that an ethical sentence spoken in private can *both* describe (or evince) my own attitude *and* persuade me to change it. If I have an attitude my sentence can describe or evince that attitude but it cannot persuade me either to have that attitude or to change it and have a new one. If I have not got an attitude I can persuade myself to acquire it (though why should I do so ?), but I cannot, by the same sentence at the same time, evince that attitude or describe it as mine. Thus I think Stevenson completely fails to deal with " I ought " sentences.

The only attempt I know to provide a subjectivist analysis of " he ought " sentence is that of Professor Barnes in his Presidential address to last year's Joint Session.[1] He admits the matter is difficult and offers two alternatives. " Brown ought to pay up " expresses either (i) an injunction to those who hear me say this to take pleasure in Brown's paying up, or (ii) an injunction to myself to encourage and be pleased to contemplate in Brown the attitude of liking to pay up and encouraging other people to do it. I can only say that even if anyone who says " Brown ought to pay up " is in such a complex internal condition as formulae such as these describe, none of them is the meaning of the sentence. I conclude that the second subjective feature which was supposed to define ethical sentence (a persuasive tendency) does not belong to all ethical sentences.

The second fault of subjectivist definitions is that the definitions given apply to non-ethical sentences. Any sentence may evince a state of mind. All language (if not consciously deceptive) is thus expressive. Any sentence may be used to persuade—*i.e.*, to change the attitude of others. All language when used in communication is persuasive. I may write to *The Times* and say " Seventeen murderers were hanged in 1947." I evince my belief ; I evince also an attitude of interest in capital punishment

[1] *Proceedings*, Suppl. Vol. XXII, p. 20, note.

and perhaps even a desire for its abolition. Moreover, I should not write unless I wanted to persuade others to alter their attitude. But the meaning of my sentence is wholly independent of any of these facts about my state of mind when I wrote it ; and the sentence is a non-ethical one. Clearly the only way in which to narrow the definition is to define the attitude which is to be evinced or evoked in others by specifically ethical sentences. This means defining the experiences or feelings in which the attitude is actualized. Thus, Professor Ayer says " A special sort of moral disapproval is the feeling which is being expressed."[1] Stevenson refers to " peculiarly moral feelings which can be distinguished from gratification and annoyance " (p. 90). How are these moral feelings so clearly distinguished ? By introspection ? But introspection of the qualities of feelings is no easy task. Or shall we say that moral attitudes are distinguished by the objects on which they are directed, namely human actions ? But human actions can be the objects of many non-moral attitudes (dislike and envy for example). Or shall we make our definition circular and say that the attitudes are those expressed by such words as " good " or " right " ? But there are many non-moral uses of these words.

Thus we have found why it is inadequate to say that ethical sentences are expressives or persuasives, and incidentally why it is plausible. It is plausible because almost all sentences can be used for expressive or persuasive purposes (in addition to their descriptive use). It is inadequate because non-ethical sentences can be so so used and because some ethical sentences are not so used.

Even if it were true that all ethical sentences, and no other sentences, were expressive or persuasive or both, that would still not prove that such sentences had no additional features (*a*) of having a meaning, (*b*) of being true or false. My *Times* sentence was both expressive and persuasive, but had in addition a meaning completely independent of its expressive or persuasive use and a similarly independent truth or falsehood. Thus all the positive arguments of Stevenson (or any other subjectivist),

[1] *Language, Truth and Logic* (Second Edition), p. 107.

even if they were cogent, would not go one inch towards proving the subjectivist theory sound. No amount of evidence that my *Times* sentence is expressive or persuasive is evidence that it is meaningless or neither true nor false. No discredit is thrown on the meaningfulness or the truth or the descriptive character of a moral judgment by the discovery that it may be used for expressive-persuasive purposes. The discredit in question arises mainly (as we shall see) from adopting the arbitrary definitions of meaning and truth recommended by the subjectivists. Thus the positive work of Stevenson and his followers is interesting and largely acceptable. It is their denials which remain in doubt. Mr. Robinson, alone I think among subjectivists, shows some recognition of this point. "The great reason in favour of the emotive theory of ethics is economy. The occurrence of emotive language, and of human feelings of approval and disapproval, is a fact in any case. *If this fact by itself will explain human behaviour and speech in matters of morals and valuation,* it is unreasonable to hypothesize any further fact, consisting in the appearance from time to time of the non-natural qualities wrongness and badness and the rest."[1] I agree entirely with this statement. All I would add is that the last sentence is an unfulfilled conditional.

The second main reason why subjectivist analyses of the meaning of "right" and "good" have been accepted is that the word "meaning" has been so used or defined as to make this possible or necessary. In order to say that the word "good" *means* something which no one (unconditioned by therapeutic subjectivism) would ever admit that it meant, the subjectivists have given to the word "means" a meaning which no one (unconditioned by therapeutic positivism) would ever dream that it had. "Clarification" has been confused with other types of philosophical argument, or persuasion. We slide from the statement that an analysis tells me what I mean to the view that it tells me what I would mean if I were clear on the matter; and thence to the view that it gives me what I would say I meant after a course of treatment aimed at "re-adjusting"

[1] *Proceedings*, Suppl. Vol. XXII, p. 103 (my italics).

my "psychological mechanisms," and thence finally to the view that what I mean is what I would say if my errors were corrected and the view I held were true. A man says that there are fairies at the bottom of his garden. You are entitled to say to him "All the evidence you have—that dancing blue light—is compatible with an escape of marsh gas. You could have no evidence not equally compatible with the marsh gas theory. There is independent evidence for marsh gas hereabouts." He might well be shaken or even convinced. But the one thing you cannot say is that when he *said* there were fairies down his garden, he *meant* there was marsh gas down his garden. Those who held the phlogiston theory did not really mean that there is no such element as phlogiston. It will not do to say that the sentence "This book is blue" *means* "light is falling on the surface of the book which is absorbing all radiations except those of a certain wave length and these are reflected on to the retina where ——," etc., etc. One is tempted (in trying to state these wildly unplausible theories which identify meaning with verification, etc.) to say this is what the statement *really* means. But here as usual the temptation should be a danger signal. "Really" is a piece of wish-fulfilment. My "real meaning" for a positivist is like my "real will" for a political idealist—"a will which I never really will because I do not know it and could not recognize it if it was set before me."[1]

The confusion of meaning with truth or with method of verification, then, is one which finds no basis in usage at all. The other type of confusion, however—that between the meaning of a sentence and the psychological states for whose existence its utterance is evidence—is one with some support in usage. I say "Jones is a bore." You reply "You mean you do not want him to lunch with us." This is the same usage of "mean" as occurs in "smoke means fire." But even here we normally distinguish between what I mean and what my words mean. It would be odd to say that the *sentence* "Jones is a bore" means

[1] L. T. Hobhouse. *The Metaphysical Theory of the State*, p. 44.

that we do not want him to lunch with us. Stevenson, it is true, tries to limit meaning in this sense of psychological antecedents or effects to those cases in which the stimulus or response would not have been associated with the word without a process of conditioning (pp. 57, 61). But even this is astonishingly wide. The frowns or praises by which we were originally persuaded to call something right or good are part of the meaning of " right " or " good," " in the psychological sense of meaning which is here in question " provided that the frowns and praises were indispensable (p. 69, note). What is the meaning of " King Charles was executed " ? Suppose I was so bad at history that I could not be got to learn this fact without lines and beatings ; then these indispensable educational aids would be part of the meaning of the sentence. It would surely be odd to say that the meaning of " King Charles was executed " includes my sufferings along with his. In any case, the psychological causes and effects of uttering a sentence cannot be discovered by " clarification " of it. If any such view were tenable, logic and semantics would be engulfed by empirical psychology.

Stevenson, with his usual fairminded recognition of difficulties, admits " The ethical terms are sometimes used hypostatically as if an object were somehow ' clothed ' in its goodness " (p. 88). For " sometimes " I should read " always except by those whose psychological mechanisms have been re-adjusted by positivist persuasions."

In the preceding paragraphs I have been refusing to accept, as an analysis of moral judgment, alternative formulations which anyone can see to mean something quite different from the statements of which they claim to provide the meaning. I have the same sort of complaint about phenomenalism, *considered as an analysis* of a perceptual statement or as an alternative language for the same fact. Phenomenalism may be one of the theories to which a man may be driven when he faces the difficulties of illusion, perspective, etc. But it is certainly not an analysis of a perceptual statement (" There is a table behind me ") or an alternative language in which to say this. For instead of my statement it offers me an unlimited

class of statements, all of which except one are hypothetical ; and there is nothing either hypothetical or multiform-unlimited about what the man who uses such a statement means.[1] The plain man certainly clothes his objects in their qualities. I do not object to your trying to convince him that the colours he sees are not " in " or " on " the objects but are in his retina or his pineal gland or his private space or his sensa or his mind. What I object to is your saying he believed all this before you started in on him. Similarly with morals. It is very easy (all too easy) to turn a beginner into a subjectivist, but even the most stupid beginner is usually quite clear that he was not a subjectivist before he sat down in your chair.

3.—*Subjectivists and Objectivity.*

The basic difficulty of subjectivism is that it makes any person's approval as valid as that of anyone else. This reduces the moral world to a chaos of caprice and infinite variation. For it is not only each man who is the measure of all things moral but each moment in each man's life. Many subjectivists see nothing odd in this. Stevenson, however, notes it as a serious danger. He says that, if moral judgments did nothing but describe (or express) approval, this objection would be valid. If " X is good " is merely expressive when said by me then it does not contradict " X is bad " when said by someone else. Moore's argument, that on the subjective view people never disagree in ethics, can be escaped only by adding the imperative function to the expressive (p. 25). Later on he puts the difficulty that the principle ' whatever anybody approves of is good ' can lead only to moral chaos, and comments " This objection ignores the emotive meaning " (*i.e.*, the persuasive or quasi-imperative meaning) " and its effect in provoking or reconciling disagreement in attitude " (p. 103). But he soon sees that the addition of the imperative function makes things no better. Instead of a chaos of momentary and unrelated feelings

[1] *Cf.* R. I. Aaron in *Proceedings*, 1938–9, p. 181.

we now have a chaos of diverse and mutually hostile persuasions. "The statement 'whatever I approve of is good' is manifestly egotistical so long as the speaker uses it as an emotively active instrument, so long as he sets himself up as an absolute monarch expecting the hearer never to disagree with him in attitude" (p. 104). "The emotive force may be tentative. It may be used not to sway the hearer without more ado, but rather with the hope of occasioning a counter-influence which will lead to mutual self-criticism and joint deliberation" (p. 107). "We often find and hope to find that our judgment serves only in the first instance to occasion a resistance or counter-influence" (p. 112). "He hopes that the hearer will criticize his reasons with the result of mutual enlightenment" (p. 157). Only then if we use our ethical sentences with these expectations or hopes or intentions can we get away from the chaos of mutually independent and irreconcilable imperatives. This is a most ingenious attempt to escape the basic difficulty of subjectivism. But surely it is pure fantasy. It was bad enough to say that the meaning of a sentence was the feeling that accompanies it or the aim it is intended to achieve, when the feeling was approval (which does usually accompany an ethical judgment) or when the aim was persuasion (which in many cases is the aim of uttering sentences). But to have to find the solution of the worst problem in attributing to the utterer of an ethical sentence an expectation or a hope which is wholly irrelevant and which he would be unlikely to entertain except by the rarest accident is surely a *reductio ad absurdum* of this gallant (and unique) attempt to face the music. I tried the experiment on myself and I could think of only one occasion in my whole life where I had uttered a moral judgment with the hope that it would be criticized and altered by my hearers; and in that case I was only half serious. I imagined earlier in this paper the fate of a subjectivist's offer to Mr. Churchill. Let him now try to persuade Mr. Churchill that when he said "Hitler is a bad man" he was hoping "to arouse a counter-influence which would result in mutual self-criticism and joint enlightenment."

Subjectivists also find it hard to avoid statements which have an objectivist implication. This may be illustrated from the parallel field of aesthetics (where, of course, subjectivism has a much longer and more distinguished history). One of the classic expressions of aesthetic subjectivism is that of Anatole France. " Objective criticism is as inconceivable as objective beauty ; anyone who thinks he puts into his appreciation of art anything but himself is the dupe of the most fallacious sophistry. We must recognize that we speak only of ourselves when we have not the self-control to remain silent. The good critic is one who recounts the adventures of his own soul as it voyages among masterpieces." Note the words " the good critic " and " masterpieces ". But surely no work of art can have priority in the realm of beauty and no soul in the realm of criticism, if we believe the subjectivists. There can be no such thing as bad poetry for the worst poetry was presumably approved by its author. One of the gems of my collection of bad poetry is a slim blue volume, which I forbear to quote. This volume contains a fly-sheet of review notices. The *Hertfordshire Mercury* says " Contains good poetry and some very nice thoughts " ; the *Galloway News and Kirkcudbrightshire Advertiser* says " Excellent verses arranged with touching delicacy." Now, on the subjectivist view, it makes no sense to say my slim blue poet is a worse poet than Shelley ; nor can the adventures of the soul of Anatole France take any precedence over the still more astonishing adventures of the soul of the *Galloway News and Kirkcudbrightshire Advertiser.*

Moral subjectivists too find it difficult to keep their subjectivism pure. Stevenson (p. 195) quotes with approval Santayana's statement " There is a tendency of representative principles to become independent powers and acquire intrinsic value," a tendency which if sometimes mischievous and " leading to idolatrous veneration " may also " produce the fine flower of human virtue." But on Stevenson's view the miser's idolatrous veneration of money and the saint's adoration of the fine flower of virtue both confer intrinsic value on their objects. For " intrinsic value " only means " approved by the speaker as an end."

Similarly, Professor Barnes speaks of " developed " and of " awakened moral sensibility."[1] Such language is not allowable in a subjectivist. Miss Macdonald in her paper on " Natural Rights " maintains that moral judgments are records of decisions and neither true nor false. Yet she says " Even a criminal cannot be cast out of humanity," and again " It is in some sense true that no one ought to be ill-treated because he is a Jew or a Negro or cannot count above ten."[2] On her own view those statements can be nothing but records of her own decisions. Hitler and the Ku Klux Klan decided otherwise. Therefore in a sense it is true that Jews and Negroes ought to be victimised. Miss Macdonald says " There are better and worse decisions."[2] Is the statement " Miss Macdonald's decision is better than Hitler's " a moral statement? But if so it is itself the record of someone else's decision or her reiteration of her own.

If I say of a man that his moral judgments are bigoted, perverted, short-sighted, or prejudiced, I can only mean that his moral tastes differ from mine. It cannot be true that any man has high or low moral standards. When I say " Jones has reformed during the year," I must be held to mean " A year ago I disapproved of Jones now I approve of him," or " I now disapprove of the sort of man Jones was last year and approve of him as he is now." Whatever I mean I cannot mean, and it cannot be true, that any *moral* change has occurred in Jones. I once thought it wrong to cycle on Sundays ; now I do not. I believe my moral standards in this respect, have not declined. Must we hold that a man's moral standards cannot change for the better or the worse? A subjectivist must say that, in calling such a change " progress " or " reform," I am simply reiterating more forcibly my present approval of Jones or of Sunday cycling. When I call another man's judgment perverted, prejudiced, or short-sighted, I am simply re-emphasizing the divergence between my subjective attitude and his.

Now divergences are not always thus emphasized.

[1] *Proceedings*. Suppl. Vol. XXII, p. 27.
[2] *Proceedings*. 1946–7, pp. 243, 250.

Sometimes when I find a divergence it shakes me, sometimes it does not. A disapproves of what I approve. A is a man I respect. He seems to me to try to do what he believes to be right. I hesitate to say dogmatically my view is as good as his. B disapproves of what I approve. B is a man for whom I have no respect. He makes no effort to keep up even to his own moral standards. My difference with him shakes me not at all. C differs from me. He is a man of scruple. He has often spotted some subtle moral issue I might otherwise have missed. He sees the relevance of related issues. I hesitate to claim as great finality for my judgment, having heard his divergence from it. D differs from me. He has regularly shown himself a man of no moral discrimination at all. He sees no difference between obviously different cases. He sees no relation between obviously related cases. He disapproves of stealing the railway company's crockery but sees nothing wrong in travelling without a ticket. He defends free enterprise with an honest conviction of the value of the individual, and treats his own staff in a way which it would be polite to describe as feudal. My difference from him worries me little. E differs from me. He is a man of rich experience. No walls have sealed him off from his fellows. No restrictive education or narrow profession has blinded him to human motives and human feelings. He is of the world but not worldly. My difference from him will worry me. F differs from me. He is a narrow man, shut off by his upbringing and his profession from human contacts, with a nature obviously warped and embittered by these handicaps. My difference from him worries me less. G differs from me. He is a man of good practical sense. His views about people and policy, when they can be checked, are highly reliable. His general attitude to life is reasonable. He is alert, critical, and sensible. My difference from him worries me. H differs from me. His judgment on non-moral matters is hopelessly bad. He is silly and unpractical in choice, superstitious and credulous in belief, hasty and rash and almost always wrong in his predictions about people or policy. My difference from him does not worry me.

What am I doing in all these contrasts? What do you do on a jury when you cannot get direct decisive evidence and two witnesses disagree? You ask yourself which witness is the more trustworthy. Of course this is risky. Sometimes the most candid and honest witness is wrong and the most shifty and suspect witness right. Nevertheless in the absence of decisive evidence, your procedure is rational. But all these contrasts (A—B, C—D, etc.) presuppose objectivity. They are all incompatible with the view that "good" and "right" are just names for what a speaker approves and tries to make others approve. For in this respect there is nothing to choose between A and B or C and D.

I have tried to argue (*a*) that subjectivism in morals is not analysis and that a subjectivist must therefore give up either the modernist view of morals or the modernist view of the method of philosophy; (*b*) that subjectivists have been able neither to explain the objectivist illusion nor themselves to avoid it altogether; (*c*) that subjectivism fails to explain much of our moral experience and of our moral procedure.

All this is, of course, negative. None of it provides an objectivist moral theory. But it provides me at least with some incentive to go on looking for one. If I am asked to choose between scrapping such powerful and deeply-rooted elements in our moral life and accepting either a faculty of insight which is neither sensation nor introspection or a faculty of reason which is neither induction nor deduction, I shall now feel that the scales are not too heavily weighted against the latter choice. I shall feel strengthened in this conviction by finding that nothing positive maintained or discovered by the new subjectivism goes to discredit objectivism, and that much of what it maintains is compatible with objectivism and is undeniably true.

Meeting of the Aristotelian Society at 21, *Bedford Square, London, W.C.*1., *on May 9th*, 1949, *at* 7.30 *p.m.*

X.—PROPOSITIONS.

By D. R. Cousin.

§1.—*The Problem.*

We cannot, I agree with Ayer,[1] conveniently get on without the word "proposition". But we do not want it to lead us into metaphysical beliefs in would-be or *ersatz* facts which subsist without existing. We ought, therefore, to try to agree upon suitable semiotical rules[2] for its use. Several such rules have been, formally or informally, proposed. But I have not seen one that I like. Do Kaplan and Copilowish[3] make good their claim that a complete account of symbolism can be given without the use of this concept? Ayer's own explanations[4] make admirably clear the sort of sentence in which the word normally occurs. But do they not leave open a question about the function which the word performs in these contexts? Are not Russell's alternatives, to make it mean either the class of all sentences having the same significance as a given sentence,[5] or else the "implicit behaviour" (a phrase which Russell adopts from Kaplan and Copilowish) occurring in the mind or body of a hearer who under-

[1] *Foundations of Empirical Knowledge* (1940) (hereinafter "Knowledge"), p. 100. I omit titles throughout, not from any disrespect for the professoriate or the peerage but to save space.

[2] I use the word "semiotical" (and, later on, the words "semantical" and "pragmatical") in the sense explained by C. W. Morris, *Foundations of the Theory of Signs; International Encyclopedia of Unified Science* Vol. I, No. 2, University of Chicago Press, 1938 (hereinafter "Foundations"). Carnap's use in his *Introduction to Semantics* (1942) and *Meaning and Necessity* (1947) (the latter of which is hereinafter called "Meaning"), is very similar.

[3] *Mind*, Vol. XLVIII, No. 192, October, 1939, pp. 478 ff. (hereinafter "K & C").

[4] "Knowledge," p. 100 ff. Cf. *Language, Truth and Logic*, 2nd Edition, 1947 (hereinafter "Language (2)"), pp. 5–8.

[5] *Inquiry into Meaning and Truth* (hereinafter "Inquiry"), p. 166.

stands a given sentence,[1] inconsistent with ordinary usage? Carnap's recent proposals[2] look more hopeful; and the following may be regarded as an attempt to recommend them by pointing out some of their psychological background. I shall say more later (in §4) about the alternatives which I reject.

What characteristics must a rule for the use of the word "proposition" possess? It should so far as possible conform to standard usage in the contexts in which the word normally occurs, *i.e.*, in logic, epistemology and semiotics.[3] If usage is inconsistent, new terms with suitable rules will have to be introduced.

Let us begin with some syntactical considerations, *i.e.*, by noticing what sort of company the word keeps. We shall want to allow for the occurrence of the word "proposition" in sentences which mention the logical relations by means of such expressions as "implies," "entails," "is a truth-function of," "necessitates," "is consistent with"; for its occurrence as the grammatical subject of sentences asserting truth or falsity and also as the direct object of such verbs as "believe," "doubt," "consider," "entertain"; and furthermore for its correlation with the word "sentence" in passages which profess to tell us what sentences mean. Should we provide for its occurrence also in sentences of the form "The sentence "..." *expresses* the proposition that ——"? This usage is certainly common,[4] and its propriety may seem to be

[1] "Inquiry," p. 188. I do not understand why "K & C" call the behaviour in question "implicit," and have not followed their practice though I agree that it is necessary to say a good deal about behaviour. I use the word "behaviour" to cover processes of any sort taking place in an organism, including inhibited impulses and processes consisting in the acquisition of dispositions, as well as processes which are obvious to outsiders while they are taking place.

[2] "Meaning," pp. 27–32.

[3] The rules I wish to propose are intended to regulate the language of semiotics itself. Friends of the hierarchy of languages will note that, accordingly, if we regard the language of semiotics as a metalanguage for the study of ordinary language, my rules will have to be—and hereby are deemed to be—formulated in what is relatively to the language of semiotics a meta-, and relatively to ordinary language a metameta-, language.

[4] See, *e.g.*, Ayer, "Knowledge" and also "Language (2)," *passim*.

confirmed by the identification of propositions with beliefs, since it is natural to say that a sentence (at any rate if it is in the indicative mood) " expresses " a belief. But the word " belief " is ambiguous, and while it seems to me as natural to say that I " express " my believing as that I express my grief it seems to me less natural to say that I " express " what I believe. (Do I not rather " say " or " state " what I believe ?).[1] I should wish, accordingly, to be excused from providing a rule for the use of " proposition " as the direct object of " express", and to be allowed to say that a sentence " states " (strictly " is used by somebody when *he* states ") a proposition.

In the contexts in which it occurs, " proposition " is to function as what Carnap has called[2] a "universal word", enabling us to refer to a number of unspecified instances of a kind.[3] We want it, further, to possess what I will call call a four-fold " neutrality " : linguistic (the same proposition may be stated in different languages)[4] ; inter-subjective (the same proposition may be entertained by different persons) ; assertive (the same proposition may be involved in different assertive attitudes—to use the phrase by which W. E. Johnson refers[5] to the difference between believing, doubting, etc.) ; and spatio-temporal (the same proposition may be entertained at different times and in different places)[6].

[1] Cf. Ayer, Symposium on *Other Minds*, Aristotelian Society Supplementary Vol. XX, p. 197 : " People say what they think, they express their emotions, their actions reveal their decisions and their beliefs."

[2] *Logical Syntax of Language* (London, 1937), § 76, p. 292 ff.

[3] Cf. also " Knowledge," p. 102. I do not accept the implication, if it is intended, that " proposition " is applied ambiguously to any of a class of *sentences*, rather than to what the sentences mean. What I do mean by " what the sentences mean " ? That, I hope, will appear.

[4] Under this heading may perhaps be brought differences in symbolic expression which are relevant not to what is being said but to the relation of the events mentioned to the speaker (" I am hot "), the listener (" You are hot "), or a third party (" He, she, they is/are hot "), and to the relation of the events represented to the occasion of representation (differences of tense, use of temporal and spatial indicators—see also what is said on spatio-temporal neutrality).

[5] *Logic*, Vol. I, p. 7.

[6] Cf. " K & C," pp. 478–9.

Can we provide a *semantical* rule for the use of "proposition" consistent with these syntactical requirements? What conditions must such a rule satisfy if it is to be acceptable? According to Kaplan and Copilowish, since we can get on without the word "proposition" at all, no semantical rule is necessary. Ayer, I take it, agrees with them; and thinks that to attempt to provide one is to try to answer an illegitimate question, *viz.* "What does . . . a sentence mean?,"[1] and can only lead to metaphysical muddles. Russell,[2] however, and Carnap[3] imply that a semantical rule can be given, but differ about the nature of the rule. I agree with them against Ayer, Kaplan and Copilowish, and with Carnap against Russell in wishing to correlate the word with something objective rather than with mental or bodily states of speaker or listener. It is a mistake to try to explain the ordinary use of the word by correlating it with the facts to which sentences refer, since in the case of falsehoods there are no such facts; or to suppose that meaning, and the epistemic attitudes, are dyadic relations between a sentence, or a mind, and some unitary object.[4] But I think we should not lightly disregard the instinct which led those who fell into these errors to look for the semantical correlate of the word "proposition" on the environmental side of the total cognitive or linguistic situation. At any rate, I am not yet convinced that the possibilities of improving upon these first approximations have been exhausted; and until that is so I think we are not justified in abandoning altogether the search for an objective interpretation of "proposition."

I am going to suggest a semantical rule for the use of the word "proposition" in logical, epistemological and semiotical contexts which is intended to fulfil the following

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[1] "Knowledge," p. 93.

[2] "Inquiry," pp. 166, 188.

[3] "Meaning," pp. 27–32.

[4] "K & C" (quoting an early passage from Russell), p. 483; "Knowledge," pp. 95–98; "Meaning," p. 30.

conditions : (*a*) it is to be in accordance with the syntactical practice indicated above ; (*b*) it is to allow to the semantical correlate of the word *some* sort of objectivity ; (*c*) it is to avoid the errors both of naive realism and of metaphysics *à la* Meinong. In order to do this, I must outline as best I can the relevant psychological and physical facts. I am not, of course, claiming to report any new discoveries in psychology ; my object is merely to point out which facts are relevant to the semantical problem. I have thought it convenient to introduce some special terminology, in order to concentrate attention where it will do most good. But my real business is to make a proposal about the way in which the word " proposition " should be used and understood. I shall discuss only very simple cases, assuming (perhaps too hopefully) that to extend my account to more complicated ones, *e.g.* to relations of higher degree than the second and to molecular and general propositions, is, as Russell says, " only a question of logic."[1] I hope that what I say is consistent with good semiotical rules for the use of the words " true " and " false," but I do not propose to discuss these rules now.

§2.—*Factual Background.*

What are the relevant facts ? Consider the processes constituting the formation and exercise of dispositions to linguistic behaviour. I use " behaviour " to speak of the interaction of an organism with its environment. Shall we say that behaviour (organic process) forms part of an " interaction-pattern " ? The first important thing to notice is that in an interaction-pattern there is, besides the organic process (the behaviour) that interests us, also an environment.

In the environment there are processes and things (which are persistent and complicated processes), constituted by the compresence (to use Russell's expression[2])

[1] " Inquiry," p. 183.

[2] " Inquiry," p. 231.

of qualities—say those which distinguish white mice from billiard balls—with spatio-temporal determinations, in the kind of unity which may be called " unity of fact." (Some features of the environment, *e.g.*, the movements of the mouse on which the cat pounces, may also be organic. But we should still call them " environmental " if we were interested only in the cat.)

Let us call a piece of behaviour, singled out for attention from the continuous process which makes up a life, an " operation ". Distinguishing spatio-temporal from qualitative aspects, let us call the environmental process in its spatio-temporal aspect the " supplement " and in its qualitative aspect the " complement " of a given operation. Where no distinction is desirable, we can use the expression " the supplement/complement of the operation ". Operations and their supplement/complements are alike in exhibiting a patterned succession of phases in complicated causal relationships both immanent and transeunt. In virtue of certain transeunt causal relationships, the environmental process—or rather certain aspects especially of its earlier phases—is called the " stimulus " and the organic operation a " response ". In virtue of certain immanent causal relationships the response has a tendency (which may in certain circumstances be inhibited) to unfold itself as a whole once the stimulus has set it off. The cat sees the mouse, gets ready, pounces, carries out the revolting ritual, munches and lapses into the digestive coma. What she sees of it at first—and later, too—is what sets the operation going and guides it as it develops ; but the important phases of the interaction are the later ones, and especially its mechanical and chemical aspects.

Interaction-patterns recognizably recur, with varying degrees of resemblance. In particular there are (though I hope I need not here attempt to analyse them) the differences which lead us to say about two operations that they are of the same type[1] but that one *succeeds* while the other *fails*. In the case of success, shall we say that the operation

[1] Or " kind." No reference is intended to the logical technicalities of the " theory of types."

is " appropriate ", in the case of failure that it is " inappropriate," to its *complement*? Besides relations of greater or less similarity, there are also those *causal* relations to which we refer when we say that behaviour is learned, or improved by practice. We should therefore say that operations of the same type form collectively not merely a class but rather a " family"[1]. Where, as in social animals and most of all in man, behaviour is not only learned but taught, a single family will include operations repeated by different individuals. Membership of the same family is compatible with the difference between a freely exercised impulse and one which is " inhibited " : we can, perhaps, detect no overt movements, but future behaviour shows that response has been not absent but only delayed, that a disposition to behaviour of a certain sort has been acquired.

Linguistic behaviour is so much affected by inhibition, and is so largely concerned with the formation and modification of dispositions, that we may easily forget that it is, like other behaviour, a way in which organisms interact with their environment. Its peculiarity is to be a part of the response to environment of a socially organized group. It is the mechanism whereby what we may call a " primary " stimulus from the environment elicits a " primary " response (*i.e.* a response which interacts with a later phase of the environmental process) not from the individual directly stimulated but from some other. This is made possible by a " secondary " response by the individual directly stimulated, consisting in the production of a change in the environment of his fellow which acts as a " secondary " stimulus and evokes from him the required " primary " response. (The barking dog frightens the child ; the child, instead of beating the dog, howls for his mother, and she drives the dog away.) Responses which either consist in the production of secondary stimuli (" active symbolic responses ") or are evoked by them (" passive symbolic responses ") may be called " linguistic

[1] By analogy with the diversely related group which H. H. Price calls a " family " of sense-data ; *Perception*, p. 218 ff.

responses," and collectively constitute linguistic behaviour. Linguistic (like any other) behaviour may be successful or unsuccessful, appropriate or inappropriate, and is of course pre-eminently subject to inhibition, learning and teaching. Moreover, it is complicated—sometimes very usefully—by the tendency to respond to secondary stimuli produced by oneself: one may increase one's own pugnacity by shouting insults, jog one's own memory by making notes, or facilitate engineering by mathematical calculation.

§3.—*Selective Description.*

Presently I am going to discuss rules for the correlation, with entities in the field surveyed in the preceding Section, of certain semiotical terms which are, I believe, indispensable for the full understanding also of logic and epistemology.

But, first, there is an obvious and familiar fact which needs to be kept in view. It concerns the relation of language to what it is used to describe.

Compared with the complexity of facts, the structure of language is simple, and indeed owes much of its utility to this simplification. (Compare the reduction of scale in a map.) We consciously or unconsciously select for mention those details of the environment which are of special importance to our own purposes. Where these details are themselves complex this complexity is often absent from their verbal description.

Anyone, therefore, who takes the structure of language as in all respects a faithful representation of the structure of what is described, will certainly fall into numerous errors. This has often been recognized and—especially in recent years—insisted on. In our own field, it is against this error that Ayer warns us when he critcizies the assumption " that ' meaning ' is a relation which a symbol bears to something."[1] By those who have recognized the error, remedies have been provided in the form of definitions, or rules for the replacement of abbreviated expressions by expressions which though clumsier in use more adequately represent

[1] " Knowledge," p. 95

the structural complexity of facts. Doubtless the *definientia* themselves normally fall short of representative adequacy, though to a less degree. If uncles are defined as parents' brothers, this overlooks the complication which is unpacked when brothers are in turn defined as male siblings, as well as much that might be said about parents.

On all this I wish to make the following comment. A man who uses ordinary language need not be misled by its simplicity. He need not suppose that he stands in some simple and direct dyadic relation to his uncle instead of, or as well as, that which consists in being a son of the uncle's sibling: he may receive the information that "uncle" designates a relative product of the two relations designated respectively by "sibling" and "parent" as no more than a technical description of what he already knew. For the most part, I believe, people who use ordinary language ignore, without at all denying, the complexity of facts. The errors against which Ayer and others have warned us are far more likely to be committed by philosophers, when they try to extract from the features of language information about the world in addition to what science provides. But philosophers *need not* commit these errors, if they will remember that language represents the facts selectively—that in communicating we simplify. What we have to do is, where necessary and possible, to devise more adequate linguistic representations of the facts, and—where this is either not necessary or not possible—to keep in mind, while we use the language available, the details which it does not represent, or at least the possibility that there are among the details unrepresented some which are important.

An illustration from the psychological field surveyed in §2 will help to prepare the way for the proposals I wish to make.

It will do to consider behaviour in general, without for the moment insisting on the special features of linguistic behaviour. We noticed that an operation would succeed or fail in virtue of a relation to its supplement/complement in the total interaction-pattern. Confining attention to

a single operation, we proposed to say that in the case of failure the behaviour was inappropriate to its complement. We recognized, however, that an inappropriate operation might be recognized as belonging to the same type (say, type " O ") as successful operations, some of which may have occurred in other organisms or in the same organism on past occasions. In a successful operation of type O, the behaviour is, by definition, appropriate to its complement. Is there anything to prevent our devising an abbreviated linguistic representation for the relative product of the relation of similarity between two operations, O_1 and O_2, of type O and the relation of the successful operation to its complement? Would it, in fact, be too far-fetched to say that the thing has already been done, and that this is what is meant when we talk of the circumstances to which a piece of unsuccessful behaviour is " adapted "? Putting the point from the opposite side, could we not say: " Operation O_1 is *adapted* to x' $=$ df $`(\exists y) : y$ is an operation of the same type as O_1, and x is the complement of y, and y is appropriate to x'? The talk of adaptation is simply a shorter form of the statement mentioning y, by which it is defined. In using it, we need not suppose that y does not exist or is irrelevant, still less that there is a relation, designated by " adapted," over and above those mentioned in the *definiens*. If this is right, it will provide us with a useful model for the proposals of the following Section.

§4.—*Semiotics.*

As a last preliminary to the formulation of a semantical rule for the use of the word " proposition," I wish to recommend, in general, the conventions introduced by C. W. Morris[1] for the description of semiotical facts. But here and there I diverge from his practice or amplify it.

First let us have some descriptions of non-linguistic behaviour which help to emphasize what linguistic and non-linguistic operations have in common. In any sort of

[1] " Foundations," *passim*.

behaviour an early phase of environmental process stimulates a response of which later phases of the same environmental process constitute the supplement/complement. Let us call such an interaction-pattern a " semiosis," the stimulus a " sign " and the operation which it elicits in the " interpreter " the " interpretant " of the sign. Where the distinction is necessary, we can call a particular occurrence of a stimulus of a given sort a " sign-vehicle ", in contrast with the " sign " as a class or family of " sign-vehicles," and this convention will be used also with the semiotical terms for secondary stimuli (symbols), *e.g.* " sentence-vehicle " in contrast with " sentence ".

Confining attention to sentences of the simplest sort, let us call the shortest complete active symbolic response " the utterance of a sentence " (or of a " sentence-vehicle "). In pragmatics, shall we say that a sentence " expresses " the behaviour (the state of mind) of the speaker and " evokes " behaviour (the primary response) in the hearer ; and shall we call the behaviour of the speaker (the " originator ") the " originant ", and that of the hearer (the " interpreter ") the " interpretant ", of the sentence ? With the " pragmatical " function of expressing and evoking behaviour may be contrasted the function of representing, or communicating information about, the environment—the " semantical " function. Sentences whose function is mainly semantical may be called " indicative " sentences.

Kaplan and Copilowish suggest[1] that all that is necessary can be said about linguistic behaviour without mentioning anything but signs and interpretants, together with certain relations in which they stand to one another and to other instances of their respective classes. But it seems to me that this overlooks the importance of the later phases of interaction-patterns, *i.e.* of the supplement/complements of interpretants. Moreover, I think that in ordinary discussion of signs we use (metalinguistic) terminology the application of which is neither to the symbols themselves

[1] " K & C," *passim.*

nor to the behaviour by which these are originated or interpreted, but to things, events and processes in the environment, and specifically to the supplements and complements of the primary operations involved. Considered merely as a physical process, and quite apart from the events in an interpreter which make it a sign, a sign is related spatio-temporally and causally to those later phases of environmental process which are its own continuation. But over and above these purely physical relations, a sign has, to these same phases of environmental process, relations which are entailed (merely as a matter of logic) by the (causal ?) relations in which it stands to its interpretant, and that in turn to its supplement/complement. We may be (I think we often are) interested in these relationships of environmental entities without being specially concerned to emphasize the other elements of the total interaction-pattern from within which they are selected. We may therefore (and I believe we constantly do) speak about these environmental entities in the simplified way characteristic of ordinary language without in any way meaning to deny the actual complexity of interaction-patterns, or the part played by interpretants in the constitution of the semantical relations of a sign to other elements of the environment. Even more often, perhaps, we mention environmental entities in relation to speakers or intepreters without mentioning the signs by which they communicate. In ordinary language we use without hesitation such expressions as " what the sentence means ", " what the speaker says," " what the hearer understands by it," " what he told me." If these ways of speaking suggest that there is some *single* thing to which a sentence stands in a direct dyadic relation, and which is its meaning, or that objects can be communicated without the help of symbolic behaviour, the suggestion must of course be resisted.[1] The semantical function of language cannot be understood so simply. But this, though true, does not prove that nothing can be said about the semantical corre-

[1] Cf. Ayer, " Knowledge," p. 97.

lates of signs without causing misunderstanding. We find that sentences are said to " mean ", " refer to " or (more technically) to " designate " something or other. Can we point out how these expressions actually are used or recommend how they should be ? It is clear, I think, that the word " mean " had better be dropped altogether and replaced by others which are less ambiguous. But it seems to me that most of what we want for the analysis of the semantical function of the sentence is available if we decide to say that a sentence " refers to " the *supplement* of its interpretant, and " designates " ambiguously the *complements* of successful operations of the same type as the interpretant. " Denoting " seems to me to stand for the relation of a sign to the *supplements* of successful operations of the same type as its interpretant. Thus, if the sentence " The beer is in the cupboard " makes me go to the cupboard now and try to pour myself a drink, it *refers to* the place where the cupboard is and to the present time. And isnce my activity, whether there is beer in the cupboard or not, is adapted to the beer-stored condition of the cupboard at other times, or (it may be) of other cupboards, the sentence *designates* those beer-stored conditions which were the complements of past successful efforts to pour out drinks. But designation has nothing to do with the times and places at which there has been beer in a cupboard. Every beer-stored condition has occurred at a place and a time, certainly ; and that is taken care of by saying that the sentence has these places and times for its *denotation.*[1]

§5.—*Propositions.*

On the basis now prepared, can we set up a rule for the use of the word " proposition "? Our rule is if possible to be in accordance with the ordinary use of the word in the contexts in which it is current, but to avoid metaphysics and any other errors to which we may be tempted when we first ask ourselves how the word is used. Let us

[1] For a note on the application of " reference." " designation," and " denotation " to *sentences*, see below, § 6 (2).

consider some of the rules which have been or might be proposed.

(*a*) We might propose to give the name " proposition " to that environmental process, or structure of things and processes, with which an interpretant actually interacts. In the terminology developed above, this is the supplement/complement of the interpretant. Such a proposal expresses an interest in the environment rather than in the persons who are interacting with it or in the processes taking place in their minds or bodies. Moreover, by referring to a complete fact it accords with the completeness of the sentence as unit of communication, in contrast with the parts of speech—words specialised for reference or designation respectively. This completeness is one of the things which we must keep in view. So far, then, the present proposal is in accordance with the unreflective usage which we have to explain. But it must nevertheless be rejected, mainly because it does not fit lies or mistakes : then, we have to say, what is believed is a false proposition—something that is not the case—whereas the supplement/complement of the interpretant of a sentence, by definition, *is* the case.

(*b*) The proposal to introduce a set of *ersatz* facts, for no other purpose than to provide an accusative for the verbs " to mean ", " to believe ", *etc.*, must also be rejected. Nobody has ever been able to point out any such thing ; and if such a thing could be pointed out its existence could not help to explain false beliefs, since these are about the things that really are the case, though they in some way get them wrong.

(*c*) Russell's proposal[1] to apply the word " proposition " to a class of co-significant sentences at least avoids the embarrassment of metaphysics, since there can be no doubt that there are such classes. Two or more sentence-vehicles may have the same semantical function. This identity of function is by no means confined to sentence-vehicles which closely resemble one another in other respects. On the contrary, co-semantical sentence-vehicles form classes (or rather families) satisfying the requirements

[1] " Inquiry," p. 166.

of the four-fold neutrality (see above, p. 153). Such a collection of sentence-vehicles might be called a " neutrality-family," *e.g.* " the neutrality-family of the sentence ' Caesar crossed the Rubicon '."[1] To a certain extent, therefore, this proposal is in accordance with our requirements. In other respects, however, I do not think that it is in accordance with ordinary usage. As Ayer has pointed out,[2] it is not sentences but propositions that we call true or false ; and we are inclined to say that a proposition is what a sentence means. It does not seem to me that a man who feels uncomfortable about saying that a sentence is true or false would be made happier by the invitation to say that a family of sentences is true or false. After all, that is only a way of saying something about each of the sentences which is a member of the family, and what could this be if not that it is—in some simpler sense—true or false ? Still less does it seem to me plausible to suggest that a sentence *means* the neutrality-family of which it is a member. The reference, surely, is *somehow* to the environment. For these reasons I am disinclined to accept this proposal as the sole rule for the use of the word " proposition." If great conveniences can be secured by its adoption, however, let it be adopted. But I should prefer to see the fact that the word is used in accordance with this convention signalized in some way, perhaps by writing " $\text{proposition}_{\text{nf}}$ ", as a cue inviting us to think of a neutrality-family rather than of the alternative to which I myself incline.

(*d*) A consideration similar to the last disinclines me to accept Russell's alternative proposal[3] to give the name " proposition " to the behaviour which we have called the " interpretant " of a sentence. That behaviour may well be my ***believing*** that Caesar crossed the Rubicon. But " what I believe ", " what the sentence means ", " what the speaker states "—surely all these phrases point to

[1] Cf. Russell's " A-family " (awareness-family) ; " Inquiry," p. 229.

[2] " Knowledge," p. 102 ; *cf.* " Language," (2), p. 6.

[3] " Inquiry," p. 188.

something else, to the indicative or semantical, rather than to the pragmatic, function of the sentence? Russell perhaps was led to ignore this by what seems to me an inaccuracy in his references to sentences which evoke erroneous beliefs. These, he says, fail to indicate; and he proceeds as if they simply had no semantical function at all. But clearly this is not so: the danger of such sentences is that they mislead, not that they do not lead at all. (If they did not, surely we should call them meaningless—semantically meaningless—rather than say that they mean false propositions?) But if a sentence does not mean a fact, nor yet some *ersatz* fact, nor its neutrality-family, nor the behaviour by which some interpreter interacts with the environment, what else is there for it to mean? What else is there that we could call a proposition?

(*e*) Is there perhaps, as Russell suggested in 1910[1] and as Carnap has suggested again[2], some complex of factual (environmental) elements which is fact-like but not factual? If so, is this what we should agree to call a "proposition"? I think that there are such complexes, and that they are what sentences mean, what we believe, and so on, and I propose that we should call them "propositions".

Consider this whole business of communication. Is it not a means whereby social groups interact with their environment? And is not this possible only because the individual members of these groups apply in a present what each has learnt in the past from his own experience or from tradition? If so, shall we not have to recognize that the semantical function of a sentence-vehicle involves, in the simple examples which we have been considering, the following environmental elements: the *supplement* of the interpretant (to which we have already said the sign "refers") and the *complement* of any successful operation which the interpretant sufficiently resembles (that which, we said above, the sign "designates")?

[1] *On the Nature of Truth*, Philosophical Essays, p. 177 ff. Cf. *Problems of Philosophy* (1912), p. 204 ff.

[2] "Meaning," p. 30.

By calling the complex consisting of these two elements a " proposition," we should, I believe, satisfy the requirements by the test of which the other proposals considered have been found wanting. (i) We should be talking about something factual or at any rate fact-like, since there is here no need to invent any *ersatz* entities. (ii) We should be talking not about sentences, but about something else to which they are related—something which, with suitable elucidations, a sentence could be said to " mean ". (iii) This correlate of the sentence would be found, not in the state of mind of speaker or listener (though there is a mental correlate—the interpretant), but in the facts about which they are thinking. (iv) We should account for the semantic function of lies and sentences expressing mistakes, since the elements in question, though elements of (environmental) fact, are not necessarily united as the elements of fact (not as are, for instance, the supplement/complement of the sentence's interpretant).

But, it may be objected, is there really any such complex as could be called " the complex " in question ? So far as we have here any realities, are they not mere *disjecta membra* of fact, without the unity which alone would account for the way in which we seem to speak of them ? If so, must not the proposal fail ? Do we not speak of " the meaning " of the sentence ? Have we not admitted that there is some unity in a proposition ? And indeed is not this unity of the proposition something more than merely the apparent presupposition of our ordinary and doubtless erroneous modes of speech ? Do we not require it to explain both knowledge and error ? Without it, where would be the discrepancy between what is believed and what is the case ?

Certainly this requirement must be met. But we need not exaggerate the difficulty of meeting it. What we require is a unity sufficient to justify us in speaking of a fact-like unity of factual elements, but by no means what we might mean by a " unity of fact ". To ask for this is perhaps to ask for something very queer. But then thinking *is* very queer, if our standard of queerness is set by

purely physical processes, as we ordinarily describe them in thing-language. Now, the elements of what I am proposing to call a "proposition" are factual elements; they are by definition aspects of actual facts—environmental processes. Moreover, they constitute what we might call a "factworthy selection," *viz.* a set of spatio-temporal and a set of qualitative determinations such as, if they were compresent, would constitute an actual occurrence—an environmental process. And though they do not, as I have defined them, constitute a unity of the sort we have called "a unity of fact", nothing in the definitions *prevents* there being a fact of this sort, if the proposition is true.

Finally, these elements are involved in something which is a unity, though a highly complex unity. A sentence facilitates interaction with the present (or rather with the immediately future) environmental processes. That is to say, it forms part of a certain unitary complex, *viz.*, the whole family of interaction-patterns exhibiting the development of a type of behaviour in the individuals of some organic species. What unifies these interaction-patterns—makes them a family—is the presence in each of an operation belonging to a particular type of linguistic behaviour[1]. To the semiotical character of a given operation as the interpretant of a particular sentence, certain features of the environment have a special relevance. Apart from the sign-vehicle of which it is the interpretant, these are (*a*) the spatio-temporal aspects of its immediate environment (its supplement) and (*b*) certain qualitative aspects belonging to previous interaction-patterns (*viz.* the complements of successful operations of the same type). Briefly, the semantical function of a sentence needs both a "referent" and a "designatum". Is not this why we sometimes speak of belief or judgment as containing, besides the element of assertion (the readiness to act), an element of "thinking of . . . as ——"? There need be no unity of these elements apart from the unity of a family of interaction-patterns in which they are fact-worthy (*e.g.* respectively spatio-temporal and qualitative) aspects. But, since it is

[1] The primary responses involved may vary widely—*see* below, § 6 (1).

this unity which, when we describe it with reference to a particular operation, is what we call the unity of semiosis, assertion or judgment, what more are we entitled to expect ?

§6.—*Odds and Ends.*

I add three brief comments.

(1) What is the relation of my proposal to that which would apply the word " proposition " to neutrality-families of sentences ? I think that my proposal is more consistent with unsophisticated usage. But further I think that it helps to explain the neutrality of neutrality-families. Neutrality is a set of facts about a collection of sentence-vehicles. The chief of these facts is that the sentence-vehicles, in spite of differences, *e.g.* of pronunciation or typography, resemble one another in *function.* In the case of indicative sentences, membership of the same neutrality-family is compatible with very different effects on behaviour : my understanding of the information that there is beer in the cupboard may be shown to-day, when I am thirsty, by pouring myself a drink, although yesterday I merely nodded and made a mental note. The natural explanation of this is that behaviour depends only partly on states of the environment ; partly it depends on states of the organism. Thus, different ways of behaving may be appropriate to similar states of affairs. This shows that it is not the pragmatical but the semantical function of indicative sentences which makes them confamiliar. In order to understand this, we have to recall that each sentence-vehicle is only an element in a total interaction-pattern. Interaction-patterns may have various similarities and differences : the same organisms but different environmental processes and signs ; the same signs and environmental processes but different organisms and different responses ; or the same environmental processes but different signs, organisms and responses, and so on. What makes indicative sentences confamiliar, I suggest, is their occurring in interaction-patterns which have at least their environmental elements in common. If this is right, it would be correct to say that indicative sentence-vehicles

are confamiliar because they all state the same proposition. This is what I propose ; is it not what we naturally incline to say until we are terrified by the objections brought against various misleading explanations of what we mean by it ?

(2) A divergence between my proposals and those to which they are most akin is that I have spoken about the reference, designation, denotation, *etc.*, of *sentences*, whereas it is more usual to introduce these items of semiotical vocabulary in relation to the signs (words) of which sentences are composed. This is a question of semiotical method far too important and involved to be entered upon here. It requires full and separate discussion. Here I will only say that I am convinced that it is with the sentence, the unit of communication, that we ought to start.[1] If we proceed to build up the theory of the sentence synthetically out of elements laid down for single words or terms we shall certainly go wrong. For we cannot rightly understand terms in abstraction from the sentences in which alone they function. I do not wish to deny that sentences, though they are the units of communication, are themselves complex. Indeed I have indicated, by the distinction I draw between reference and designation, that they are always functionally complex. And it seems to be obvious that the tendency to proceed synthetically from a theory of terms has its cause in the fact that to this functional complexity there normally answers the structural complexity which we recognize when we speak of the " parts of speech " or the logical distinctions of subject and predicate. All that, I believe, could be worked out correctly if only we begin in the right way, with a psychological analysis of linguistic behaviour which recognizes that behaviour is the socially conditioned, learned, patterned, interaction of an organism with its environment.

(3) Finally, I will merely repeat that I believe my proposal agrees with ordinary usage in that it is propositions, understood as I am proposing to understand them, that are said to be true or false. The full development of this point would call for a semiotical discussion of the use of the words " true " and " false " themselves. I do not propose to attempt this here and now.

[1] G. Ryle pointed this out to me.

Meeting of the Aristotelian Society at 21, *Bedford Square, London, W.C.*1, *on May* 23*rd*, 1949, *at* 7.30 *p.m.*

XI.—THE ASCRIPTION OF RESPONSIBILITY AND RIGHTS.

By H. L. A. HART.

THERE are in our ordinary language sentences whose primary function is not to describe things, events, or persons or anything else, nor to express or kindle feelings or emotions, but to do such things as claim rights (" This is mine "), recognise rights when claimed by others (" Very well this is yours "), ascribe rights whether claimed or not (" This is his "), transfer rights (" This is now yours "), and also to admit or ascribe or make accusations of responsibility (" I did it," " He did it," " You did it "). My main purpose in this article is to suggest that the philosophical analysis of the concept of a human action has been inadequate and confusing, at least in part because sentences of the form " He did it " have been traditionally regarded as primarily descriptive whereas their principal function is what I venture to call *ascriptive*, being quite literally to ascribe responsibility for actions much as the principal function of sentences of the form " This is his " is to ascribe rights in property. Now ascriptive sentences and the other kinds of sentence quoted above, though they may form only a small part of our ordinary language, resemble in some important respects the formal statements of claim, the indictments, the admissions, the judgments, and the verdicts which constitute so large and so important a part of the language of lawyers ; and the logical peculiarities which distinguish these kinds of sentences from descriptive sentences or rather from the theoretical model of descriptive

sentences with which philosophers often work can best be grasped by considering certain characteristics of legal concepts, as these appear in the practice and procedure of the law rather than in the theoretical discussions of legal concepts by jurists who are apt to be influenced by philosophical theories. Accordingly, in the first part of this paper I attempt to bring out some of these characteristics of legal concepts ; in the second, I attempt to show how sentences ascribing rights function in our ordinary language and also why their distinctive function is overlooked ; and in the third part I attempt to make good my claim that sentences of the form " He did it " are fundamentally ascriptive and that some at any rate of the philosophical puzzles concerning " action " have resulted from inattention to this fact.

I.

As everyone knows, the decisive stage in the proceedings of an English law court is normally a *judgment* given by the court to the effect that certain facts (Smith put arsenic in his wife's coffee and as a result she died) are true and that certain legal consequences (Smith is guilty of murder) are attached to those facts. Such a judgment is therefore a compound or blend of facts and law ; and, of course, the claims and the indictments upon which law courts adjudicate are also blends of facts and law, though claims, indictments, and judgments are different from each other. Now there are several characteristics of the legal element in these compounds or blends which conspire to make the way in which facts support or fail to support legal conclusions or refute or fail to refute them unlike certain standard models of how one kind of statement supports or refutes another upon which philosophers are apt to concentrate attention. This is not apparent at once : for when the judge decides that on the facts which he has found there is a contract for sale between A and B, or that B, a publican, is guilty of the offence[1] of supplying liquor to a constable

[1] S. 16 of the Licensing Act, 1872.

on duty, or that B is liable for trespass because of what his horse has done on his neighbour's land, *it looks* from the terminology as if the law must consist of a set, if not a system, of legal concepts such as " contract," " the offence of supplying liquor to a constable on duty," " trespass," invented and defined by the legislature or some other " source," and as if the function of the judge was simply to say " Yes " or " No " to the question : " Do the facts come within the scope of the formula defining the necessary and sufficient conditions of ' contract,' ' trespass,' or ' the offence of supplying liquor to a constable on duty ' ?"

But this is for many reasons a disastrous over-simplification and indeed distortion, because there are characteristics of legal concepts which make it often absurd to use in connection with them the language of necessary and sufficient conditions. One important characteristic which I do not discuss in detail is no doubt vaguely familiar to most people. In England, the judge is not supplied with explicitly formulated general criteria defining " contract," or " trespass "; instead he has to decide by reference to past cases or precedents whether on the facts before him a contract has been made or a trespass committed, and in doing this he has a wide freedom in judging whether the present case is sufficiently near to a past precedent and also in determining what the past precedent in fact amounts to, or, as lawyers say, in identifying the *ratio decidendi* of past cases. This imports to legal concepts a vagueness of character very loosely controlled by judicial traditions of interpretation and it has the consequence that usually the request for a definition of a legal concept—" What is a trespass ? " " What is a contract ? "—cannot be answered by the provision of a verbal rule for the translation of a legal expression into other terms or one specifying a set of necessary and sufficient conditions. *Something* can be done in the way of providing an outline, in the form of a general statement of the effect of past cases, and that is how the student starts to learn the law. But beyond a point, answers to the questions " What is trespass ? " " What is contract ? " if they are not to mislead, must take the forms

of references to the leading cases on the subject, coupled with the use of the word " etcetera."

But there is another characteristic of legal concepts of more importance for my present purpose which makes the word " unless " as indispensable as the word " etcetera " in any explanation or definition of them and the necessity for this can be seen by examining the distinctive ways in which legal utterances can be challenged. For the accusations or claims upon which law courts adjudicate can usually be challenged or opposed in two ways. First, by a denial of the facts upon which they are based (technically called a traverse or joinder of issue) and secondly by something quite different, namely, a plea that although all the circumstances are present on which a claim could succeed, yet in the particular case, the claim or accusation should not succeed because other circumstances are present which brings the case under some recognised head of exception, the effect of which is either to defeat the claim or accusation altogether or to " reduce " it, so that only a weaker claim can be sustained. Thus a plea of " provocation " in murder cases, if successful, " reduces " what would otherwise be murder to manslaughter ; and so in a case of contract a defence that the defendant has been deceived by a material fraudulent misrepresentation made by the plaintiff entitles the defendant in certain cases to say that the contract is not valid as claimed nor " void " but " voidable " at his option. In consequence, it is usually not possible to define a legal concept such as " trespass " or " contract " by specifying the necessary and sufficient conditions for its application. For any set of conditions may be adequate in some cases but not in others and such concepts can only be explained with the aid of a list of exceptions or negative examples showing where the concept may not be applied or may only be applied in a weakened form.

This can be illustrated in detail from the law of contract. When the student has learnt that in English law there are positive conditions required for the existence of a valid contract, *i.e.*, at least two *parties*, an *offer* by one, *acceptance* by the other, a *memorandum* in writing in some cases and

consideration, his understanding of the legal concept of a contract is still incomplete and remains so even if he has learnt the lawyers technique for the interpretation of the technical but still vague terms, " offer," " acceptance," " memorandum," " consideration." For these conditions, although necessary, are not always sufficient and he has still to learn what can *defeat* a claim that there is a valid contract, even though all these conditions are satisfied. That is the student has still to learn what can follow on the word " unless " which should accompany the statement of these conditions. This characteristic of legal concepts is one for which no word exists in ordinary English. The words " conditional " and " negative " have the wrong implications, but the law has a word which with some hesitation I borrow and extend : this is the word " *defeasible*" used of a legal interest in property which is subject to termination or " *defeat* " in a number of different contingencies but remains intact if no such contingencies mature. In this sense then, contract is a defeasible concept.

The list of defences with which an otherwise valid claim in contract can be met is worth a philosopher's inspection because it is here that reference to the factor that intrigues him—the mental factor—is mainly to be found. Thus the principal defences include the following :[2]

A. Defences which refer to the knowledge possessed by the defendant.
   i. Fraudulent misrepresentation.
   ii. Innocent misrepresentation.
   iii. Non-disclosure of material facts (in special cases, *e.g.*, contracts of insurance, only).

B. Defences which refer to what may be called the will of the defendant.
   i. Duress.
   ii. Undue influence.

[2] This list of course is only a summary reference to the more important defences sufficient to illustrate the point that the defeasible concept of contract cannot be defined by a set of necessary and always sufficient conditions. There are important omissions from this list, *e.g.*, the disputed topic known to lawyers as " Mistake." Adequate discussion and illustration of these and other defences will be found in legal textbooks on contract, *e.g.* Cheshire and Fifoot, " Law of Contract," Chap. IV.

C. Defences which may cover both knowledge and will.
   i. Lunacy.
   ii. Intoxication.

D. Defences which refer to the general policy of the law in discouraging certain types of contract, such as
   i. Contracts made for immoral purposes.
   ii. Contracts which restrain unreasonably the freedom of trade.
   iii. Contracts tending to pervert the course of justice.

E. The defence that the contract is rendered " impossible of performance " or " frustrated " by a fundamental and unexpected change of circumstance, *e.g.*, the outbreak of a war.

F. The defence that the claim is barred by lapse of time.

Most of these defences are of general application to all contracts. Some of them, *e.g.*, those made under (D), destroy altogether the claim that there is a contract so that it is void *ab initio* ; others, *e.g.*, those under (B) or (C), have a weaker effect rendering it merely " voidable " at the option of the party concerned and till this option is exercised the contract remains valid so that rights may be acquired by third parties under it ; while the lapse of time mentioned in (F) merely extinguishes the right to institute legal proceedings, but does not otherwise affect the existence of the contract. It is plain, therefore, that no adequate characterisation of the legal concept of a contract could be made without reference to these extremely heterogeneous defences and the manner in which they respectively serve to defeat or weaken claims in contract. The concept is irreducibly defeasible in character and to ignore this is to misrepresent it. But, of course, it is *possible* to obscure the character of such concepts by providing a general formula which seems to meet the demand often felt by the theorist for a definition in terms of a set of necessary and sufficient conditions and since philosophers have, I think, obscured in precisely this way the defeasible character of the concept

of an action it is instructive to consider how such an obscuring general formula could be provided in the case of contract and to what it leads.

Thus the theorist bent on providing a general definition of contract could at any rate make a beginning by selecting the groups of defences (A), (B) and (C), which refer to the will and knowledge of the defendant and by then arguing that the fact that these defences are admitted or allowed shows that the definition of contract requires as necessary conditions that the minds of the parties should be "fully informed" and their wills "free." And indeed legal theorists and also on occasion judges do attempt to state the "principles" of the law of contract much in this way. Thus Sir Frederick Pollock, writing[3] of the consent of the parties required for the constitution of a valid contract, says "but we still require other conditions in order to make the consent binding on him who gives it. . . . The consent must be true, full and free." Now, of course, this method of exposition of the law may be innocuous and indeed helpful as a summary of various types of defences which usefully stresses their universal application to all contracts or emphasises the similarities between them and so suggests analogies for the further development of the law or what can be called "reasons" for that development. But unless most carefully qualified, such a general formula may be profoundly misleading; for the positive looking doctrine "consent must be true, full and free" is only accurate as a statement of the law if treated as a compendious reference to the defences with which claims in contract may be weakened or met, whereas it suggests that there are certain psychological elements required by the law as necessary conditions of contract and that the defences are merely admitted as negative *evidence* of these. But the defence, *e.g.*, that B entered into a contract with A as a result of the undue influence exerted upon him by A, is

[3] "Principles of the Law of Contract," 10th edn., p. 442. The words omitted are "though their absence in general is not to be assumed and the party seeking to enforce a contract is not expected to give affirmative proof that they have been satisfied."

not evidence of the absence of a factor called " true consent," but one of the multiple criteria for the use of the phrase " no true consent." To say that the law requires true consent is therefore, in fact, to say that defences are such as undue influence or coercion, and any others which should be grouped with them are admitted. And the practice of the law (in which general phrases such as " true consent " are of little importance) as distinct from the theoretical statement of it by jurists (in which general terms bulk largely) makes this clear ; for no party attempting to enforce a contract is required to give evidence that there was " true, full and free consent," though in special cases where some person in a fiduciary position seeks to enforce a bargain with the person in relation to whom he occupies that position, the onus lies upon him to prove that no influence was, in fact, exerted. But, of course, even here the proof consists simply in the exclusion of those facts which ordinarily constitute the defence of undue influence, though the onus in such cases is by exception cast on the plaintiff. Of course, the theorist could make his theory that there are psychological elements (" full and free consent ") required as necessary conditions of contract, irrefutable by ascribing the actual procedure of the courts to the practical difficulties of proving " mental facts "; and it is sometimes said that it is merely a matter of practical convenience that " objective tests " of these elements have been adopted and that the onus of proof is usually upon the defendant to prove the non-existence of these necessary elements. Such a doctrine is assisted by the ambiguity of the word " test " as between evidence and criteria. But to insist on this as the " real " explanation of the actual procedure of the courts in applying the defeasible concept of a contract would merely be to express obstinate loyalty to the persuasive but misleading logical ideal that all concepts must be capable of definition through a set of necessary and sufficient conditions. And, of course, even if this program were carried through for the defences involving the " mental " element it is difficult to see how it could be done for the other defences with which claims in contract can be met, and, accordingly, the defeasible character of the concept would still remain.

The principal field where jurists have I think created difficulties for themselves (in part under the influence of the traditional philosophical analysis of action) by ignoring the essentially defeasible character of the concepts they seek to clarify is the Criminal Law. There is a well-known maxim, " *actus non est reus nisi mens sit rea,*" which has tempted jurists (and less often judges) to offer a general theory of " the mental element " in crime (*mens rea*) of a type which is logically inappropriate just because the concepts involved are defeasible and are distorted by this form of definition. For in the case of crime, as in contract, it is possible to compile a list of the defences or exceptions with which different criminal charges may be met with differing effect and to show that attempts to define in general terms " the mental conditions " of liability like the general theory of contract suggested in the last paragraph is only not misleading if its positive and general terms are treated merely as a restatement or summary of the fact that various heterogeneous defences or exceptions are admitted. It is true that in crime the position is more complicated than in contract since fewer defences apply to all crimes (there being notable differences between crimes created by statute and Common-law crimes) and for some crimes proof of a specific intention is required. Further, it is necessary in the case of crime to speak of defences *or exceptions* because in some cases, *e.g.*, murder, the onus of proof may be on the Prosecution to provide evidence that circumstances are not present which would if present defeat the accusation. Yet, none the less, what is meant by the mental element in criminal liability (*mens rea*) is only to be understood by considering certain defences or exceptions, such as Mistake of Fact, Accident, Coercion, Duress, Provocation, Insanity, Infancy,[4] most of which have come to be admitted in most crimes and in some cases exclude liability altogether, and in others merely " reduce " it. The fact that these are admitted as defences or exceptions constitute the cash value of the maxim " *actus non est reus*

[4] See for a detailed discussion of these and other defences or exceptions, Kenny : " Outlines of Criminal Law," Chap. IV.

nisi mens sit rea." But in pursuit of the will o' the wisp of a general formula, legal theorists have sought to impose a spurious unity (as judges occasionally protest) upon these heterogeneous defences and exceptions, suggesting that they are admitted as merely evidence of the absence of some single element ("intention") or in more recent theory, two elements ("foresight" and "voluntariness") universally required as necessary conditions of criminal responsibility. And this is misleading because what the theorist misrepresents as evidence negativing the presence of necessary mental elements are, in fact, multiple criteria or grounds defeating the allegation of responsibility. But it is easy to succumb to the illusion that an accurate and satisfying "definition" can be formulated with the aid of notions like "voluntariness" because the logical character of words like "voluntary" are anomalous and ill-understood. They are treated in such definitions as words having positive force, yet, as can be seen from Aristotle's discussion in Book III of the Nicomachean Ethics, the word "voluntary" in fact serves to exclude a heterogeneous range of cases such as physical compulsion, coercion by threats, accidents, mistakes, etc., and not to designate a mental element or state; nor does "involuntary" signify the absence of this mental element or state.[5] And so in a murder case it is

[5] Thus Mr. J. W. C. Turner, in his well-known essay (in the Modern Approach to Criminal Law. English Studies in Criminal Science, Vol. I, p. 199) on the Mental Element in Crimes at Common Law lays down two rules defining the mental element.

(First rule): "It must be proved that the accused's conduct was voluntary."

(Second rule): "It must be proved that . . . he must have foreseen that certain consequences were likely to follow on his acts or omissions" [p. 199]. Mr. Turner's view is indeed an improvement on previous attempts to "define" the mental element in crime so far as it insists that there is not a single condition named *mens rea* and also in his statement on page 199 that the extent to which "foresight of consequence" must have extended differs in the case of each specific crime. But none the less this procedure is one which really obscures the concepts it is meant to clarify for the words "voluntary" and "involuntary" are used as if they refer to the presence and absence respectively in the agent of some single condition. Thus on page 204, Mr. Turner gives the same title of "involuntary conduct" to cases of acts done under hypnotic suggestion, when sleepwalking, "pure" accidents, and certain cases of insanity, drunkenness, and infancy, as well as the case where B holds a weapon and A, against B's will, seizes his hand and the weapon and therewith stabs C.

a defence that the accused pulled the trigger reasonably but mistakenly believing that the gun was unloaded, or that there was an accident because the bullet unexpectedly bounced off a tree ; or that the accused was insane (within the legal definition of insanity) or an infant ; and it is a partial defence " reducing " the charge from murder to manslaughter that the accused fired the shot in the heat of the moment when he discovered his wife in adultery with the victim. It is, of course, *possible* to represent the admission of these different defences or exceptions as showing that there is a single mental element (" voluntariness ") or two elements (" voluntariness " and " foresight ") required as necessary mental conditions (*mens rea*) of full criminal liability. But in order to determine what " foresight " and " voluntariness " are and how their presence and absence are established it is necessary to refer back to the various defences and then these general words assume merely the status of convenient but sometimes misleading summaries expressing the absence of all the various conditions referring to the agents knowledge or will which eliminate or reduce responsibility.

Consideration of the defeasible character of legal concepts helps to explain how statements of fact support or refute legal conclusions and thus to interpret the phrases used by lawyers for the connection between fact and law when they speak of " the legal effect or consequences of the facts " or " the conclusions of law drawn from the facts " or " consequences attached to the facts." In particular, it shows how wrong it would be to succumb to the temptation offered by modern theories of meaning to identify the meaning of a legal concept, say " contract," with the statement of the conditions in which contracts are held to exist since owing to the defeasible character of the concept such a statement though it would express the necessary and sometimes sufficient conditions for the application of " contract " could not express conditions which were always sufficient. But, of course, any such theory of the meaning of legal concepts would fail for far more fundamental reasons : for it could not convey the composite

character of these concepts nor allow for the distinctive features due to the fact that the elements in the compound are of distinct logical types.

Two of these distinctive features are of special relevance to the analysis of action and arise out of the truism that what a Judge does is to judge ; for this has two important consequences. First, the Judge's function is, *e.g.*,[6] in a case of contract to say whether there is or is not a valid contract upon the claims and defences actually made and pleaded before him and the facts brought to his attention, and not on those which might have been made or pleaded. It is not his function to give an ideally correct legal interpretation of the facts, and if a party (who is *sui juris*) through bad advice or other causes fails to make a claim or plead a defence which he might have successfully made or pleaded, the judge in deciding in such a case, upon the claims and defences actually made, that a valid contract exists has given the right decision. The decision is not merely the best the Judge can do under the circumstances and it would be a misunderstanding of the judicial process to say of such a case that the parties were merely treated *as if* there were a contract. There *is* a contract in the timeless sense of "is" appropriate to judicial decisions. Secondly, since the judge is literally deciding that on the facts before him a contract does or does not exist, and to do this is neither to describe the facts nor to make inductive or deductive inferences from the statement of facts, what he does may be either a *right* or a *wrong* decision or a *good* or *bad* judgment and can be either *affirmed* or *reversed* and (where he has no jurisdiction to decide the question) may be *quashed* or *discharged*. What cannot be said of it is that it is either *true* or *false*, logically necessary or absurd.

There is perhaps not much to tempt anyone to treat a judicial decision as a descriptive statement, or the facts as related to legal conclusions as statements of fact may be related to some descriptive statement they justify, though I think the tendency, which I have already mentioned, to regard the exceptions or defences which can defeat claims

[6] Different considerations may apply in criminal cases.

or accusations merely as evidence of the absence of some necessary condition required by the law in the full definition of a legal concept is in fact an attempt to assimilate a judicial decision to a theoretical model of a descriptive statement ; for it is the expression of the feeling that cases where contracts are held not to exist " must " be cases where some necessary condition, required in the definition of contract, is absent. But sometimes the law is cited as an example of a deductive system at work. " Given the existing law " it will be said " the statement of facts found by the judge entail the legal conclusion." Of course, this could only be said in the simplest possible cases where no issue is raised at the trial except what commonsense would call one of fact, *i.e.*, where the parties are agreed that if the facts go one way the case falls within some legal rule and if they go another way it does not, and no question is raised about the meaning or interpretation of the legal rule. But even here it would be quite wrong to say that the judge was making a deductive inference ; for the timeless conclusion of law (Smith is guilty of murder) is not entailed by the statements of temporal fact (Smith put arsenic in his wife's coffee on May 1st, 1944) which support it ; and rules of law even when embodied in statutes are not linguistic or logical rules, but to a great extent rules for deciding.

II.

If we step outside the law courts we shall find that there are many utterances in ordinary language which are similar in important respects in spite of important differences, to the judicial blend of law and fact, but first, some cases must be distinguished which are not instances of this phenomenon but are important because they help to explain why it has been overlooked.

A. First, we, of course, very often make use of legal concepts in descriptive and other sentences and the sentences in which we so use them may be statements and hence

(unlike the Judge's decision in which legal concepts are primarily used) they may be true or false. Examples of these are the obvious cases where we refer to persons or things by their known legal consequences, status or position. " Who is that woman ? " " She is Robinson's wife and the adopted daughter of Smith, who inherited all his property." " What is that in the wastepaper basket ? " " My contract with John Smith."

B. Secondly, we may refer to things, events and actions not by their known legal consequences, but by their intended or reputed legal consequence or position. " What did your father do yesterday ? " " He made his will." It should be noticed that this use may give rise to some curious difficulties if it is later found that the reputed or intended legal conclusion has not been established. What should we say of the sentence written in my diary that " My father made his will yesterday " if it turns out that since it was not witnessed and he was not domiciled in Scotland the courts refuse to recognise it as a will. Is the sentence in my diary false ? We should, I think, hesitate to say it is ; on the other hand, we would not repeat the sentence after the court's decision is made. It should be noticed also that we may make use of our own legal system and its concepts for the purpose of describing things or persons not subject to it as when we speak of the property of solitary persons who live on desert islands.

C. Thirdly, even outside the law courts we use the language of the law to make or reject claims. " My father made his will yesterday " may indeed be a claim and not a pure descriptive statement, though it will, of course, carry some information with it, because with the claim is blended reference to some justifying facts. As a claim it may be later upheld or dismissed by the courts, but it is not true or false.

But in all these instances, though such sentences are uttered in ordinary life, the technical vocabulary of the law is used in them and so we are alert to the possibility that they may not function as descriptive sentences though very often they do. But consider now sentences where

the words used derive their meaning from legal or social institutions, for example, from the institution of property, but are simple non-technical words. Such are the simple indicative sentences in which the possessive terms " mine," " yours," " his " appear as grammatical predicates. " This is mine," " This is yours," " This is his " are primarily sentences for which lawyers have coined the expression " operative words " and Mr. J. L. Austin the word " performatory."[7] By the utterance of such sentences, especially in the present tense, we often do not describe but actually perform or effect a transaction; with them, we *claim* proprietary rights, *confer* or *transfer* such rights when they are claimed, *recognise* such rights or *ascribe* such rights whether claimed or not, and when these words are so used they are related to the facts that support them much in the same way as the judge's decision. But apart from this, these sentences, especially in past and future tenses, have a variety of other uses not altogether easy to disentangle from what I have called their primary use, and this may be shown by a sliding scale of increasing approximation to a pure descriptive use as follows :

(*a*) First, the operative or performatory use. " This is yours " said by a father handing over his gold watch to his son normally effects the transfer of the father's rights in the watch to the son ; that is, makes a gift of it. But said by the elder son at the end of a dispute with his brother over the family possessions, the utterance of such a sentence constitutes a recognition of the rights of the younger son and abandons the claims of the elder. Of course, difficulties can arise in various ways over such cases analogous to the problems that confront the Judge : we can ask whether the use of the words is a valid method of making gifts. If English law is the criterion, the answer is " yes " in the example given ; but it would be " no " if what the father had pointed to was not his watch but his house, though in this case it may be that we would consider the son morally entitled to the house and the

[7] See his discussion of some cases in " Other Minds." Proceedings of the Aristotelian Society, Suppl. Vol. XX, pp. 169 to 174.

father morally bound to make it over to him. This shows that the rules which are in the background of such utterances are not necessarily legal rules. But the case to which I wish to draw attention is that where we use such sentences not to transfer or confer rights, but to ascribe or recognise them. For here, like a Judge, the individual decides *on* certain facts that somebody else has certain rights and his recognition is like a judgment, a blend of fact and rule if not of law.

(*b*) Secondly, sentences like "This is mine," "This is yours," "This is his" can be used simply as descriptive statements to describe things by reference to their owners. Taking visitors round my estate, I say, pointing to a field, "This is mine" or "I own this" purely by way of information.

(*c*) Thirdly, there are the more casual ascriptive use of these sentences in daily life which are difficult to classify. Suppose as we get up to go I see you have left a pen and give it to you, saying "This is yours" or suppose I am walking in the street and notice as the man in front takes out his handkerchief a watch falls from his pocket. I pick it up and hand it back to him with the words "This is yours." We might be tempted to say that we are using the sentence here simply as a descriptive statement equivalent to "You were carrying this and you dropped it or you left it"; but that this is not at any rate clearly so can be seen from the following considerations. If after we have handed back the watch the police drive up in a car and arrest the man for theft, I shall not willingly repeat the sentence and say it was true, though if it were "descriptive" of the physical facts why should I not? On the other hand, I will not say of what I said that it was false. The position is, of course, that a very common good reason for recognising that a person has some rights to the possession of a thing is that he is observed physically in the possession of it; and it is, of course, correct in such circumstances to ascribe such rights with the sentence "This is yours" in the absence of any claim or special circumstance which may defeat them. But as individuals we are not in the

position of a Judge ; our decision is not final, and when we have notice of new circumstances or new claims we have to decide in the light of them again. But in other respects the function of sentences of this simple and non-technical sort resembles that of judicial decisions. The concepts involved are defeasible concepts like those of the law and similarly related to supporting facts. It would be possible to take the heroic course of saying that sentences like " This is his," " This is yours " have acquired, like the word " give," a purely descriptive sense to signify the normal physical facts on which it is customary to ascribe rights of possession ; but this would not account for the peculiarity of our usage and would commit the mistake of ignoring their defeasible character and identifying the meaning of an expression with which we make decisions or, ascriptions with the factual circumstances which, in the absence of other claims, are good reasons for them. With more plausibility it may be said that there is a sense of " mine," " yours," " his " which is descriptive—the sense in which my teeth (as distinct from my *false* teeth) are mine or my thought and feelings are mine. But, of course, with regard to these we do not make and challenge utterances like " This is mine," " This is yours," " This is his," and it is the logical character of these with which I am concerned.

III.

So much for the ascription and recognition of rights which we effect with the simple utterances " This is yours," " This is his " and the associated or derivative descriptive use of these sentences. I now wish to defend the similar but perhaps more controversial thesis that the concept of a human action is an ascriptive and a defeasible one, and that many philosophical difficulties come from ignoring this and searching for its necessary and sufficient conditions. The sentences " I did it," " you did it," " he did it " are, I suggest, primarily utterances with which we *confess* or *admit* liability, make accusations, or *ascribe* responsibility ;

and the sense in which our actions are ours is very much like that in which property is ours, though the connection is not necessarily a *vinculum juris*, a responsibility under positive law. Of course, like the utterances already examined, connected with the non-descriptive concept of property, the verb " to do " and generally speaking the verbs of action, have an important descriptive use, especially in the present and future senses, their ascriptive use being mainly in the past tense, where the verb is often both timeless and genuinely refers to the past as distinguished from the present. Indeed, the descriptive use of verbs of action is so important as to obscure even more in their case than in the case of " this is yours," " this is his," etc. the non-descriptive use, but the logical character of the verbs of action is, I think, betrayed by the many features which sentences containing these verbs, in the past tense, have in common with sentences in the present tense using the possessive pronouns (" this is his," etc.) and so with judicial decisions by which legal consequences are attached to facts.

I can best bring out my point by contrasting it with what I think is the mistaken, but traditional philosophical analysis of the concept of an action. " What distinguishes the physical movement of a human body from a human action ? " is a famous question in philosophy. The old-fashioned answer was that the distinction lies in the occurrence before or simultaneously with the physical movement of a mental event related (it was hoped) to the physical movement as its psychological cause, which event we call " having the intention " or " setting ourselves " or " willing" or " desiring " to do the act in question. The modern answer is that to say that X performed an action is to assert a categorical proposition about the movement of his body, *and* a general hypothetical proposition or propositions to the effect that X would have responded in various ways to various stimuli, or that his body would not have moved as it did or some physical consequence would have been avoided, had he chosen differently, etc. Both these answers seem to me to be wrong or at least inadequate in

many different ways, but both make the common error of supposing that an adequate analysis can be given of the concept of a human action in any combination of the descriptive sentences, categorical or hypothetical, or any sentences concerned wholly with a single individual. To see this, compare with the traditional question about action the question " What is the difference between a piece of earth and a piece of property." Property is not a descriptive concept, and the difference between " this is a piece of earth " or " Smith is holding a piece of earth " on the one hand, and " this is someone's property " and " Smith owns a piece of property " on the other cannot be explained without reference to the non-descriptive utterances by means of which laws are promulgated and decisions made or at the very least without reference to those by which rights are recognised. Nor, I suggest, can the difference between " His body moved in violent contact with anothers " and " He did it " (*e.g.*, " He hit her ") be explained without reference to the non-descriptive use of sentences by which liabilities or responsibility are ascribed. What is fundamentally wrong in both the old and the new version of the traditional analysis of action as a combination of physical and psychological events or a combination of categorical and hypothetical descriptive sentences, is its mistake in identifying the meaning of a non-descriptive utterance ascribing responsibility in stronger or weaker form, with the factual circumstances which support or are good reasons for the ascription. In other words, though of course not all the rules in accordance with which, in our society, we ascribe responsibility are reflected in our legal code nor vice versa, yet our concept of an action, like our concept of property, is a social concept and logically dependent on accepted rules of conduct. It is fundamentally not descriptive, but ascriptive in character ; and it is a defeasible concept to be defined through exceptions and not by a set of necessary and sufficient conditions whether physical or psychological. This contention is supported by the following considerations :

First, when we say after observing the physical move-

ments of a living person in conjunction with another today, " Smith hit her," or " Smith did it " in answer to the question " Who hit her ? " or " Who did it ? " we surely do not treat this answer as a combined assertion that a physical movement of Smith's body took place, and that some inferred mental event occurred in Smith's mind (he set himself or intended to hit her) ; for we would be adding something to this answer if we made any such reference to psychological occurrences. Nor do we treat this answer as a combination of categorical or hypothetical sentences descriptive of a physical movement and of Smith's disposition or what would have happened had he chosen differently. On the contrary, saying " He hit her " in these circumstances is, like saying " That is his," a blend. It is an ascription of liability justified by the facts ; for the observed physical movements of Smith's body are the circumstances which in the absence of some defence, support, or are good reasons for the ascriptive sentence " He did it." But, of course, " He did it " differs from " That is his " for we are ascribing responsibility not rights.

Secondly, the sentence "Smith hit her " can be challenged in the manner characteristic of defeasible legal utterances in two distinct ways. Smith or someone else can make a flat denial of the relevant statement of the physical facts, " No, it was Jones, not Smith." Alternatively (but since we are not in a law court, not also cumulatively), any of a vast array of defences can be pleaded by Smith or his friends which, though they do not destroy the charge altogether, soften it, or, as lawyers say, " reduce " it.

Thus it may be said " He did it " (" He hit her ")

1. " Accidentally " (she got in his way while he was hammering in a nail).
2. " Inadvertently " (in the course of hammering in a nail, not looking at what he was doing).
3. " By mistake for someone else " (he thought she was May, who had hit him).

4. " In self defence " (she was about to hit him with a hammer).
5. " Under great provocation " (she had just thrown the ink over him).
6. " But he was forced to by a bully " (Jones said he would thrash him).
7. " But he is mad, poor man."

Thirdly. It is, of course, possible to take the heroic line and say that all these defences are just so many signs of the absence in each case of a common psychological element, " intention," " voluntariness," " consciousness," required in a " full " definition of an action, *i.e.*, as one of its necessary and sufficient conditions, and that the concept is an ordinary descriptive concept after all. But to this, many objections can be made. These positive looking words "intention," etc. if put forward as necessary conditions of all action only succeed in posing as this if in fact they are a comprehensive and misleadingly positive-sounding reference to the absence of one or more of the defences, and are thus only understandable when interpreted in the light of the defences, and not vice versa. Again, when we are ascribing an action to a person, the question whether a psychological " event " occurred does not come up in this suggested positive form at all, but in the form of an inquiry as to whether any of these extenuating defences cover the case. Further, when a more specific description of the alleged common mental element is given, it usually turns out to be something quite special and characteristic only of a special kind of action, and by no means an essential element in all actions. This is plainly true of Professor H. A. Pritchards[8] " setting ourselves " which well describes some grim occurrences in our lives, but is surely not an essential ingredient in all cases where we recognise an action.

Fourthly. The older psychological criterion affords no explanation of the line we draw between what we still call an action though accidental and other cases. If I aim at a post and the wind carries my bullet so that it hits a

[8] See " Duty and Ignorance of Fact," p. 24 *et seq.*

man, I am said to have shot him accidentally, but if I aim at a post, hit it and the bullet then ricochets off and hits a man, this would not be said to be my action at all. But in neither case have I intended, set myself to do, or wished what occurred.

Fifthly. The modern formula according to which to say that an action is voluntary is to say that the agent could have avoided it if he had chosen differently either ignores the heterogeneous character of our criteria qualifying " He did it " when we use words like " accidentally," " by mistake " " under coercion," etc., or only avoids this by leaving the meaning of the protasis " If he had chosen differently " intolerably vague. Yet our actual criteria for qualifying " He did it," though multiple and heterogeneous, are capable of being stated with some precision. Thus, if the suggested general formula is used to explain our refusal to say " He did it " without qualification when a man's hand is forcibly moved by another, it is misleading to use the same formula in the very different cases of accident, mistake, coercion by threats or provocation. For in the first case the statement " the agent could not have acted differently if he had chosen " is true in the sense that he had no control over his body and his decision was or would have been ineffective ; whereas in, *e.g.*, the case of accident the sense in which the statement is true (if at all) is that though having full control of his body the agent did not foresee the physical consequences of its movements. And, of course, our qualification of " He did it " in cases of coercion by threats or provocation (which have to be taken into account in any analysis of our usage of verbs of action) can only be comprehended under the suggested general formula if the protasis is used in still different senses so that its comfortable generality in the end evaporates ; for there will be as many different senses as there are different types of defences, or qualifications of " He did it." Some seek to avoid this conclusion by saying that in cases where we qualify " He did it," *e.g.*, in a case of accident, there are, in fact, two elements of which one is *the genuine* action (firing the gun) and the other are its

effects (the man being hit), and that our common usage whereby we say in such cases " He shot him accidentally " is inaccurate or loose. " Strictly," it is urged, we should say " He fired the gun " (action in the strict sense) and " the bullet hit the man." But this line of thought, as well as supposing that we can say what a " genuine " action is independently of our actual usage of verbs of action, breeds familiar but unwelcome paradoxes. If cases of accident must be analysed into a genuine action *plus* unintended effects, then equally normal action must be analysed into a genuine action *plus* intended effects. Firing the gun must be analysed on this view into pulling the trigger *plus* . . . and pulling the trigger into cocking the finger *plus* . . . . So that in the end the only " genuine actions " (if any) will be the minimal movements we can make with our body where nothing " can " go wrong. These paradoxes are results of the insistence that " action " is a descriptive concept definable through a set of necessary and sufficient conditions.

Sixthly. When we ascribe as private individuals rights or liabilities, we are not in the position of a judge whose decision is authoritative and final, but who is required only to deal with the claims and defences actually presented to him. In private life, decisions are not final, and the individual is not relieved, as the judge often is, from the effort of inquiring what defences might be pleaded. If, therefore, on the strength of merely the physical facts which we observe we judge " Smith hit her " and do not qualify our judgment, it can be wrong or defective in a way in which the judges decision cannot be. For if, on investigating the facts, it appears that we should have said " Smith hit her accidentally," our first judgment has to be qualified. But it is important to notice that it is not withdrawn as a false statement of fact or as a false inference that some essential mental event had occurred necessary for the truth of the sentence " He did it." Our ascription of responsibility is no longer justified in the light of the new circumstances of which we have notice. So we must judge again : *not describe again.*

Finally, I wish to say, out of what lawyers call abundant caution, that there are two theses I have not maintained. I have maintained no form of behaviourism for although it often is correct to say " He did it " on the strength only of the observed physical movements of another, " He did it " never, in my view, merely describes those movements. Secondly, I wish to distinguish from my own the thesis often now maintained as a solution or dissolution of the problem of free will that to say that an action is voluntary *means* merely that moral blame would tend to discourage the agent blamed from repeating it, and moral praise would encourage him to do so. This seems to me to confuse the question what we mean by saying that a man has done an action with the question why we bother to assign responsibility for actions to people in the way we do. Certainly, there is a connection between the two questions, that is between theories of punishment and reward and attempts to elucidate the criteria we do in fact employ in assigning responsibility for actions. No doubt we have come to employ the criteria we do employ because among other things in the long run, and on the whole not for the wretched individual in the dock but for " society," assigning responsibility in the way we do assign it, tends to check crime and encourage virtue ; and the social historian may be able to show that our criteria slowly alter with experience of the reformative or deterrent results obtained by applying them. But this is only one of the things which applying these criteria does for us. And this is only one of the factors which lead us to retain or modify them. Habit, or conservatism the need for certainty, and the need for some system of apportioning the loss arising from conduct, are other factors, and though, of course, it is open to us to regret the intrusion of " nonutilitarian " factors, it yet seems to me vital to distinguish the question of the history and the pragmatic value and, in one sense, the morality of the distinctions we draw, from the question what these distinctions are.

Meeting of the Aristotelian Society at 21, Bedford Square, London, W.C.1, on June 13th, 1949, at 7.30 p.m.

XII.—BASIC NEEDS AND MORAL IDEALS.

By MORRIS GINSBERG.

RECENT ethical discussions seem to have been mainly concerned with two issues. There are those who think that the dividing line in ethical theory is to be drawn in accordance with a distinction variously expressed as rule and end, duty and interest, obligation and self-satisfaction. According to others a more fundamental distinction is between the non-naturalistic approach which considers ethical categories as irreducible or *sui generis*, and the naturalistic approach which interprets moral experience in terms of psychological or sociological facts.

These distinctions overlap, since it is possible to give a naturalistic account of both good and duty and, certainly, naturalists are not committed to the view that the criterion of moral action is satisfaction of individual desire or interest. A theory, for example, which interprets moral obligation as consisting in some form of group constraint or group pressure may well cover action which from the point of view of the individual might be considered repressive.

These matters have been discussed with great subtlety and no doubt a great many points have been clarified. I doubt, however, whether the classifications involved can be applied without serious qualification to most moral philosophers or to reflective commonsense morality. Consider an extreme case like that of Hobbes. He undoubtedly interprets good in terms of desire : "Whatever is the object of any man's appetite or desire that is what he for his part calleth good."[1] But in discussing natural law he also makes use of the concept of right reason, at work, it would seem, when the mind is quiet.[2] Right reason enjoins peace and the will to obey the necessary conditions of peace for their own sake. This is a matter

[1] *Leviathan* VI.
[2] *Sedato animo* *De Cive*, III, 26.

not merely of external observation of the laws but of inner conscience (*in foro interno*). The mind at rest recognises the duties of fidelity, gratitude, courtesy, forbearance and justice and grasps the truth of golden rule : do not do that to another which thou wouldst not have done to thyself. It is clear that beyond actual desire distorted by passions there is ideal desire, that which is prescribed by right reason in the calm of the mind.

In a similar way Bentham no doubt begins by insisting that the notion of duty is a fiction, but in the end his ethic is thoroughly normative in character. He requires a legislator who can make use of sanctions in order to bring about a harmony of interests which the play of motives left to themselves would not secure. The principle of utility passes from the indicative mood to the imperative. It is at once a practical command and a statement of scientific fact. Indeed, he says himself : " The difference between Hume and me is this : the use which he made of it was to account for that which *is*, I show what *ought to be*."[3] Both Westermarck and Alexander again seek to interpret the facts of the moral life in terms of tendencies to approval and disapproval likely to be felt by individuals or groups in reference to certain classes of acts. But they cannot rid themselves of the notion of an ideal going beyond the individual or the group.[4] So T. H. Green says much of self-satisfaction, but it is not the self as it is that he has in mind, but the self as it would be, if it sought satisfaction " where it ought to be sought."[5]

On the other hand, I doubt whether those who start with the notion of duty or obligation can proceed very far without reference to the notion of end, fulfilment or realisation of human potentiality. This is surely true even of Kant who regards the growth of rationality as the end of the historical process and who sums up the content of duty in the injunction to seek our own perfection and the

[3] Letter to Dumont, cited by Halevy : *La Formation du Radicalisme Philosophique* (Notes), Vol. I, p. 282.

[4] Westermarck, *Origin and Development of Moral Ideas*, Vol I, p. 123 ; Alexander, *Beauty and Other Forms of Value*.

[5] *Prolegomena*, 171-177.

happiness of others. In commonsense morality appeal is made no doubt in the first instance to accepted rules, and it is often felt that they must be followed regardless of consequences. "*Fiat justitia ruat coelum*" represents a powerful strain in the history of morals. But as has often been pointed out there is generally a tacit assumption that the heavens will not fall. Commonsense, moreover, requires a *rationale* for rules and this is not by any means always found by deduction from more general principles. Particularly when a change in an accepted rule is discussed, as frequently happens when a moral basis is sought for a change in legislation, the question that is commonly asked is what good does the rule do, whose well being does it secure? A discussion of the divorce laws will not go far without reference to the probable effect of the proposed change on the well-being of the children, the happiness and character of the partners, the relation of the stability of the home to the general good of society. A strong element in commonsense morality is the recognition that there must be rules and that these, to be effective, must not be questioned in particular cases. But commonsense morality also recognises that rules do not provide their own justification and that they should serve some useful or good purpose.

I have referred to these matters in order to bring out the fact that in all moral experience there is an implicit reference to a certain duality in human nature. Moral experience moves between the poles of repression and fulfilment, the negation of self and the realisation of self, the need for freedom and the need for control. Behind these oppositions is the sense of a contrast or conflict between the "lower" and "higher" parts of human nature, or between the element of impulse and the element of reason, or between the demands of the inner life and the demands of the social order or, in Butler's phrase, between the demands of the "several parts" and the "whole nature," correspondence to which should regulate the course of life. Whatever the form in which the contrast is expressed, there is the implication that the nature of man

is not just given or static but that it is capable of growth, of rising above what it may at any moment be and that in some sense what man may become is part of his nature. Hence, as it seems to me, the notion of an " ideal " is central in moral experience. For in the notion of an ideal there is a fusion of the conception of something that " would " satisfy us if attained and the conception of something that " should " or ought to satisfy us. In other words in moral experience appeal and constraint, pressure and aspiration are in various degrees intermingled. The ideal stands before us as something desirable though not necessarily desired, as something which makes demands on us and which may involve abnegation of desire but which in the end would be not repressive but liberative. A study of ideals will, I think, show that they are related to and arise from fundamental human needs, but that they at the same time tend to transform them and to control them. From this point of view the element of obligation and the element of interest or desire, in some respects opposed, are also interlocked in moral experience.

It is very strange that the nature of ideals has been so little explored by moral psychologists. The use of the word is, of course, not confined to ethics or aesthetics. We speak of an ideal circle or a straight line, where the reference is to the limit of a series to which actually observed figures or lines approximate. In biology " types " are constructed to stand for the qualities of a species at their fullest. Again, in reference to tools or instruments, the word may be used to represent functional completeness, as when we speak of a perfect knife. The two latter uses approximate, since the notion of a type in reference to living things has teleological implications : the type may be conceived as that which exemplifies the functions of the species at their fullest. In all these cases, I take it, the ideal is built up by a process of constructive imagination, involving both analytic abstraction and the synthesis or fusion of qualities. It thus may be well or ill constructed and is presumably capable so far of being subjected to rational tests.

The notion of functional excellence is of course the root idea of Greek ethics and of the modern theories of self-realisation. All such theories would make the fulfilment or realisation of the specifically human functions the object of conscious or deliberate striving. But modern theories show a greater awareness of the difficulties inherent in such conceptions of the moral end. Firstly, since man is an evolving being it is recognised that we cannot hope to give a complete formulation of a final good or *summum bonum*. We can only discover gradually what human beings are capable of and our conception of human excellence must change as our knowledge deepens and our sensitiveness increases. Secondly, modern writers are more conscious of the difficulties inherent in the notion of all-round excellence. The theories which resort to the idea of a mean or of harmony have lost their appeal to those who have become deeply conscious of the ravages of conflict and repression in human life. The teaching of Aristotle that the mean cannot be ascertained by quantitative estimation, but requires the wisdom of the man of practical sagacity, is strongly confirmed by the failure of moralists to establish a hierarchy of values or duties which can command general assent. The task of rational ethics is, it seems to me, to provide the man of practical sagacity with a surer foundation for his insight by deepening our knowledge of human needs and clarifying the ideals which arise in the course of our efforts to satisfy them.

The basic human needs fall broadly into three groups. There are, firstly, the needs of the body, for example, for food, drink, exercise, rest, sleep. There are, secondly, the needs of the mind, the need to understand, to construct, appreciate, to be at home in the world. There are, thirdly, what may be called the social needs, the need for other human beings, to respond and seek response. These needs are broader and more general than the instincts, if these are conceived as specific and stereotyped responses to stimuli, inner or outer. The need to understand is deeper than the instinct of curiosity conceived as the specific tendency to explore and manipulate. The need for

other human beings is deeper than the specific tendency of seeking the herd or of sex, or parentage. The basic needs may be partly satisfied by the instincts but, if not, they retain their power and drive the organism to seek satisfaction in other ways. Behind these main needs there soon arise more general needs, of which the most important is security or freedom from the fear of losing the conditions necessary for the satisfaction of the basic or root needs.

All these needs are of very wide range and in detail infinitely variable. To say that they are just given and that reason has no function in relation to them, save that of supplying the means which are necessary in order to satisfy them, is very naive. To begin with, we soon find ourselves compelled to compare them in various ways. They differ not merely in hedonic tone but in degree of urgency or priority, intensity or zest of enjoyment, indispensability, range of the conditions under which they can be satisfied, the degree in which they admit of alternative satisfaction, for example, by re-direction or sublimation, and no doubt in many other ways. These differences are not commensurable in terms of identical units, yet we can and do compare them and our judgment improves with growing insight and experience. We only gradually discover what our nature craves for and what we are capable of. Not only do we make mistakes, as the moralists of all ages have told us, in seeking satisfaction where it is not to be found, but we often do not know what it is that we need or want or what it is in the objects we seek that we desire or love. We desire to understand the world and to be at home in it, but what is it to understand or to feel at home? These are matters which require prolonged reflection and exploration. Apparently simple desires frequently turn out to be complex and require and permit of analysis. Analytic reflection is also clearly required in order to determine what ends are desired as means to other ends and what are desired for their own sakes. The apparent multiplicity and heterogeneity of ends would be greatly reduced if we distinguished more clearly between intrinsic and instrumental ends.

Moral problems, always related to basic needs, emerge into consciousness with the formation of ideals. These are ends which are built up out of the basic needs by a process of constructive imagination, spurred on by disappointments and failures, directly experienced or vividly realised through sympathy with others. They are clearly not identical with the basic needs. We may consider them briefly by reference to the groups of needs distinguished above. Thus, there arises the ideal of bodily and mental health. This is clearly far more complex than any of the particular needs for food, rest, exercise and so on. It has a structure of its own which has to be discovered. It has, moreover, a regulative or normative side, since it involves the control of specific impulses and even their inhibition in the light of standards having general applicability. The ambivalent character of moral ideals is here easily seen. Clearly we desire health but the desire involves control and restraint. To many people, indeed, it would seem that the whole content of morals might be ascertained by a careful analysis of the ideal of bodily and mental health. Again, with reference to the needs of the mind, the pursuit of truth is no doubt rooted in the instinct of curiosity and wonder, but is clearly far more complex. It involves the building up of a sentiment which grows in complexity as the structure of truth is more clearly envisaged and the demands which it makes more fully appreciated. Similarly, in the course of satisfying our need for others we gradually discover something of the structure of love and there is built up the ideal of enduring union, the happiness and well being of the loved object, reciprocity of love and the desire to be happy in the love of the object. In the course of living and working with others we discover something of the nature of a social bond, of the limits and difficulties of co-operation and thus something of the nature of justice. We also discover the moral qualities proper, that is the qualities of character which are necessary in the pursuit of ideals. In the pursuit of truth we become aware of the importance of detachment, self-knowledge, freedom from self-deception, disinterestedness, the readiness to abide by

the evidence, the willingness to see the world as it is and not as we should like it to be. Similarly in regard to the affections, we discover the qualities of character needed by love at its best, devotion, selflessness, patience, steadfastness. In living with others we discover the importance of sincerity, loyalty, self-respect, respect for others and so forth. Above all, we discover the importance of moral wisdom, that is the power of grading and discriminating between different kinds of excellence, and of moral strength, or the power of pursuing wholeheartedly the choice of our discrimination and of adventurousness in the search of new values. These moral qualities then come to be valued for their own sake.

It will be seen that these ideals, though rooted in human needs, imply obligations and make demands which control and transform them. These demands are not arbitrary but are inherent in the structure of the needs and the ideals and are, so to say, necessitated by the structure. Each ideal generates its own norms and they appeal and constrain in varying degrees. The balance or grading of the ideals depends on what may be called the general way or form of life which prevails in a society. This is in fact never unitary or self-consistent, and there are always different ways or forms of life within a general framework, difficult to define. Thus, for example, what is called the Western way of life contains many, partly conflicting, ways of life. The general framework or set of relations within which ideals are embodied constitutes what may be called a common or social good, the maintenance or furtherance of which comes to be conceived as an overriding obligation which may come into conflict with the demands of particular ideals. In all this it is not implied that the ideals arise first and the way of life constructed out of their relations with each other. The general form of life and the particular ideals grow up together and influence each other without being, it seems, ever in harmony.

We have seen that it is the peculiar characteristic of ideals that in them appeal and constraint, pressure and aspiration, are in varying degrees intermingled. The element of obligatoriness is seen most clearly in the case

of the ideal of justice, and the problems raised by it are of central importance both in ethics and politics. The idea of justice arises out of the needs of social co-operation and defines the conditions of life in common. Its central core is the exclusion of arbitrariness and especially of arbitrary power. This is why the sense of injustice is historically a more potent drive than any positive conception of what constitutes justice. The ideal of justice accordingly takes shape first in the negative injunction not to hurt or obstruct others and it moves slowly towards the task of securing an equitable or non-arbitrary distribution of the conditions which are required for the satisfaction of human needs and the realisation of the ideals governing these needs. The ideal of justice is thus in a sense the sum of all other ideals. It comes to stand for an order or orders of life in which the ideals are graded and balanced. Accordingly it undergoes change as the conditions of social life change and new ideals emerge. The antinomies inherent in the ideal, the conflict between freedom and order, spontaneity and compulsion, are of course far from resolved. The problems raised are far from being merely verbal and their solution is not a matter of mere likes and dislikes. The formal exclusion of arbitrariness is easy enough to grasp. But what constitutes arbitrariness requires an accurate knowledge of the differences between men and the relevance of these differences to the conditions which are claimed as necessary for the satisfaction of needs. These are clearly matters of great complexity and their clarification requires not only greater knowledge of human nature and social organisation but a deepened insight into the structure of ideals.

If this mode of approaching ethical problems be acceptable, it involves a rejection of naturalism and of all theories which conceive of the moral end as a form of self-satisfaction. Naturalism must be rejected because the notion of an ideal involves a reference to what ought to be, and this is not reducible to any psychological or sociological fact, such as inner constraint or group pressure. The conception of self-satisfaction, though it serves to emphasise the vitalising

and liberative aspects of ideals, is inadequate because it neglects the elements of obligation and fails to bring out the importance of the larger form or order of life within which the ideals are embedded and which therefore goes beyond the individual. The question remains whether the approach here suggested can be rationally defended.

It is clear that many of the questions involved relate to facts which presumably can be scientifically investigated, though not always in quantitative terms. The basic needs can be compared and graded as we have seen in various ways and obviously much light can be thrown upon them by psychology and physiology. Can ideals be subjected to rational tests? Is there any way of distinguishing between veridical and fictitious ideals?

Clearly ideals cannot be "verified" in the sense of being shown to correspond to fact, since they do not claim to formulate what is but what, through our action, ought to be. Nevertheless, rational reflection can do a great deal. It can, it seems to me, try to perform at least the following functions. First, it can seek to clarify the ideals, to discover their inner structure. Second, it can help to free them from the accretions that have gathered around them in the course of the development of morals. Third, it can enquire into the compatibility or incompatibility of the various ideals and especially into the relations between the general form of life and its constituent ideals. Fourth, it can examine the various ways in which ideals are affected by the means which are used in their attainment. I will try to illustrate these points.

Ideals possess vitality in so far as they serve the deeper needs of our nature, but they are often defeated because of their vagueness, the ease with which they can be used as spiritual boost and the failure to examine the conditions necessary for their attainment. Hence the dismissal of ideals as "unreal" often made with an intensity which betrays a hidden fear of their strength. An obvious example is the intolerable vagueness of such words as "national self-determination," or "democracy," which makes it possible for them to be used in defence of policies radically different

and even contradictory. To clarify them, we need hardly to be reminded, is a task of the greatest urgency. The ideals represented by these words are of course very complex. To analyse them it would be very necessary to get back to many of the first-order ideals which enter into their composition.

Is freedom such a first-order ideal? It seems to arise directly out of the effort of living things each to maintain itself, in Spinoza's phrase, out of the *conatus in suo esse perserverandi.* But what is *in suo esse* in the case of man? The difficulties of answering this question appear in the many attempts to define freedom. Does it consist in the power of doing what we like, in the power of doing what we ought to do, in the power of doing what we think we ought to do, in the control of the passions by reason, in the absence of inner conflict or repression, or more positively in inward harmony, or again in the power of forming a relatively impartial judgment of the nature and consequences of our action and of acting accordingly? Is freedom in any of these senses valued for its own sake, or is it valued because it is a necessary condition for the attainment of other values?[6] These are not questions that can be answered by direct intuition or *prima facie* likes and dislikes. It will perhaps be urged that we have as yet no agreed answer to them. But it could hardly be denied that modern thought has deepened our insight into the nature of freedom and the related topics of choice, deliberation and responsibility, since, say, Aristotle's delineation of these problems in the *Ethics.*

The modern mind owes this deeper insight to its realisation of the intimate connection between rationality and freedom, to its fuller knowledge of the sources of conflict within the mind and its more vivid appreciation of the importance of freedom for moral goodness. The connection between rationality and freedom was of course insisted upon by Kant. His view that freedom consists in acting in accordance with a universal law which we impose on

[6] Cf. Rashdall, *Theory of Good and Evil,* I, p. 283 : "A certain kind of liberty is an essential condition of well-being, but is not well-being itself."

ourselves seems unacceptable, if only on the ground that it would make morally bad acts unfree. But that there is a connection between the growth of rational reflection and freedom is clear. The expansion of knowledge widens the sphere of action by revealing the possibilities, within himself and without, open to the agent and increasing his grasp of the probable consequences of action. The scope of freedom, if not freedom itself, is thus expanded with the growth of accurate knowledge. Our deeper insight into sources of conflict within the mind should also help in revealing what happens in deliberation and choice and in what ways the impediments or obstacles to freedom can be overcome. I think further that psychological analysis and criminological studies can now throw a considerable light on the nature of responsibility. Responsibility seems to depend on the agent's power of realising the consequences of his actions, his grasp of the rules—legal or moral—which govern these actions and his capacity for being influenced in his conduct by such knowledge. On all these matters we now have ample data for analysis and clarification. The association between moral goodness and freedom was stressed by Kant to the point of identification. This is not now convincing. But that freedom is in some sense essential to morality cannot seriously be disputed. The ideals to which reference was made above depend for much of their quality upon spontaneity. Love, for example, whether of truth or of persons, clearly cannot be forced, nor can inner conviction be coerced, and the moral qualities proper, that is, the qualities of character, necessary for the realisation of the ideals, cannot develop except from within. In this sense freedom is not a condition of goodness but one of its constituents, as it is also a constituent of badness. I do not imagine that in these brief remarks I have done much to clarify the notion of freedom. My object in referring to it is merely to suggest that the data are now available for an analysis of its structure and of its relation to various modes of mental integration.

The task of clearing ideals from the accretions that have gathered round them is truly formidable. It could

not be seriously attempted without the aid of a developed science of comparative psychology and comparative morals. Here I can only give a brief example of the kind of treatment I have in mind. Consider the case of asceticism as an ideal.

At its core is the notion of training and discipline, involving renunciation and the enduring of hardship for the sake of spiritual excellence. But, as seen in the history of the great religions, it contains many other elements with which it may well have no necessary connection. First, there is the strange metaphysical doctrine that the body is evil, the prison-house of the soul. Influenced by this idea, ascetic practices come to be directed not at training the body but at destroying it. Next, according to modern psychological studies, asceticism is often influenced by sadistic and masochistic trends, involving self-mortification and self-torture. Here psychological analysis can help by revealing what is illusory in masochism. The masochist thinks he likes pain, but what really drives him, it would seem, is the desire to escape from conflict by losing himself in something else, and pain is not what he wants but the price of what he needs. Furthermore, not only does the masochist not know what he wants, but seeks a solution of his real problem in a direction where in fact it cannot be found. He cannot by mortification escape conflict or rid himself of his feeling of isolation.

There is another element in asceticism which is sometimes stressed. It is said to be a method of preparing oneself for unavoidable pain by enduring it deliberately and so meeting it half-way. The enduring of pain is thus an element in acquiring self-mastery by overcoming the fear of pain. The danger is that the desire for mastery may become an obsession. The ascetic may give up his whole life to mastering fear and thus become a slave of fear in the process of conquering it. Similarly the process of seeking the conditions of pure contemplation may end in utter passivity and sheer vacuity. It is clear that before we can be in a position to decide what value there may be in the ascetic ideal, we have to study its natural history and psychology and so determine to what extent it has been distorted by excesses and overlaid by superstitions. In general, in

dealing with morality we have to distinguish between what is due to sheer authority and tradition, and what will stand on its own merits, between what is due to taboos rooted in superstitions, magical fears and revulsions, and what will survive when these have been cleared away.

The problem of the compatibility of ideals opens a wide field of enquiry. Here I can only give a few examples. An interesting case is to be found in the accounts that some philosophers have given of the grounds underlying the prohibitions of incest or marriage between near kin. Montesquieu (*Esprit des lois*, 1, XXVI, c. XIX) suggested that the prohibition of incest is essential for the maintenance of a common life in the family. He thought that the sentiments required for upholding order and intimacy in the family are incompatible with the sentiments that would develop if sexual relations between the parents and children or between brothers and sisters were permitted. A similar view is put forward by Malinowski, who urges that the family as an agent of cultural transmission could never have survived if incestuous relations were allowed. Lotze says that the forbidding of marriage between near relatives belongs to those rules which society seeks to maintain at any price " not because it contradicts any (not demonstrable) ' command of nature,' but because a correct moral insight condemns the admixture of different moral relations, each of which can unfold its peculiar beauty and worth only when it does so purely for its own sake." (*Practical Philosophy*, p. 71.) Hobhouse's view is very close to this. The function, he thinks, which the horror of incest performs has been, in early stages, to bring and keep families together and thus, by the links of intermarriage, to extend the area of social organisation ; and at all stages, " to maintain distinct and therefore in healthy development the deepest affections of mankind " (*Morals in Evolution*, p. 146). If these explanations are on the right lines, the ground of the rules in question would be found in an incompatibility between the sentiments of family authority and the sexual sentiments, or more generally between the sexual sentiments and the parental-filial sentiments. One difficulty of testing this hypotheses is of course that of determining whether the

incompatibility or conflict of sentiments would persist in societies where the prohibitions did not exist, whether, in short, the incompatibility is not due to the prohibition rather than the reverse. Since the rules in question are found in all societies, no appeal can be made to negative instances. Nevertheless, some light might be thrown on these problems by fuller knowledge of the structure of the sentiments in question and the ways in which they vary, with variation in the rules regulating marriage in different societies.

In the case just considered the problem of compatibility arises in connection with a supposed clash between fundamental or basic sentiments, each valued for its own sake and for the part it plays in the general social framework. Another illustration on a different level may be given from the relations between liberty and equality considered as political principles. The principle of equality has been taken as intuitively certain by many. Others have thought that it has no rational warrant and that the only possible sanction for it is to be found in theological doctrines, such as that all are the children of God or that Christ died for all.[7] The Utilitarians, as is well known, found great difficulty in dealing with equality. Bentham, in interpreting his formula of the greatest happiness, laid it down that " everyone is to count for one, nobody for more than one." But he seems to have been more interested in securing the greatest sum of happiness than an equal distribution of it.[8] Spencer thought that the " principle of utility presupposes the anterior principle that everybody has an equal right to happiness." Sidgwick urged that the principle of seeking the greatest happiness on the whole must be supplemented by some " principle of just and right distribution of this happiness " and he seems to think that this principle is that of " pure equality " and that it is the only one that does not need a special justification.[9] Elsewhere, in dealing with the distribution of the means of happiness, he urges that greater equality is " in itself a desirable thing,"

[7] See, among others, Schumpeter, *Capitalism, Socialism and Democracy*, p. 263.

[8] " Equality is not itself, as security, subsistence and abundance are, an immediate instrument of felicity." *Works*, IX, 14.

[9] *Methods of Ethics*, 4th Edition, p. 414.

provided it can be attained without any loss of freedom.[10] He goes on to support this position on utilitarian grounds by appealing to the principle of diminishing utility and argues that any quantum of wealth is generally less likely to be useful to its owner the greater the total of private wealth of which it forms a part. On the whole, however, Sidgwick appears to think equality is in itself right since " it must be reasonable to treat any one man in the same way as any other if there be no reason apparent for treating him differently."[11]

These hesitations and differences of opinion seem to arise mainly from the ambiguities of the word " equality " and from the tendency to erect the production of the greatest good and the attainment of a just distribution into separate and even opposed principles. In accordance with the point of view outlined above the following approach to the problem is suggested.

In dealing with distributive justice we are concerned with the definition and balancing of rights. These are claims made by individuals or groups (or made on their behalf) for the conditions necessary for the fulfilment of their functions. The general principle is that of equality and this may be further analysed in the following way :—

(1) Everyone concerned is entitled to be considered, or negatively, no one concerned should be ignored or have his claims merely overridden (equality of consideration).

(2) In allocating rights like cases should be treated in like manner. A difference in treatment requires justification in terms of relevant and sufficient differences between the claimants (exclusion of arbitrariness).

(3) If differences are justified on the ground of relevant differences in the basis of the claims, the allocation should be proportionate to the differences. Where the differences cannot be estimated with precision, it is generally held to be better to assure a minimum for all, and perhaps to see to it that the differential awards do not endanger the minimum (principle of proportionate equality).

(4) Since no single right is absolute, principles of distribution must always be subject to qualifications in

[10] *Elements of Politics*, p. 160.
[11] *Methods*, p. 414.

accordance with an estimate of the probable effect of the mode of distribution adopted on claims based on other rights and on the total order or form of life (principle of the common good).

The application of these principles involves difficult problems of balance and adjustment. In the case of political rights democratic societies have adopted the principle of " one man, one vote," *faute de mieux*. Differences of voting capacity are ignored in the absence of any agreed method by which they could be estimated and in order to secure participation by all. In the economic field the principle of securing a minimum is now widely recognised. Differential awards are, however, considered necessary in order to stimulate production and so make available a greater total for distribution.

In dealing with problems such as these we come up against the real difficulties of social ethics. But they are not difficulties which can be usefully stated in the form of a clash between the principle of securing the greatest good and the principle of securing what is just. If the analysis suggested above is on the right lines what is just and what is good cannot be ascertained independently.

I turn now to the question whether there is any substance in the contention that equality is incompatible with liberty or freedom. Social freedom (as distinct from the freedom of the will) consists, it seem to me, in a body of rights or assured powers to fulfil needs or realise capacities. Such a body of rights must be in accord with the principle of equality and cannot conflict with it. Looking at the matter from the other side, the problem of freedom arises because either by inborn capacity or as a result of unjust institutions men are unequal in power. In the absence of control only those who have excess of power would be free. Thus in order to maximise freedom it is necessary to prevent existing inequalities from being abused and to remove sanctioned inequalities. In this sense freedom and equality, so far from being incompatible, are interrelated. All are equally entitled to be protected against the abuse of power and to a share in the control of collective power. Liberty depends on the removal or mitigation of inequalities in power, and equality is thus the necessary condition of liberty[12]

[12] Cf. R. H. Tawney, *Equality*, Chap. VI, ii.

A word must be said about what I have called the principle of the common good. The term " common " is used both in a distributive and collective sense. In a distributive sense the principle would assert that the conditions necessary for the good life, insofar as they can be secured by collective action, are to be shared by every member of the community. This requirement is, however, covered by what I have called the principles of equality of consideration and of proportionate equality. In a collective sense the principle of a common good refers to an order or form of life in which the different values are graded and balanced and the conditions necessary for the maintenance of the entire order defined. We may speak of a just or good order when the reference is to the set of relations between the members considered as a form or pattern. This seems to imply that we can attribute goodness or badness to the relations between individuals and not merely to the individuals entering into them. But strictly it is the individuals-in-certain-relations that we have in mind and not the relations apart from the members.

This has an important bearing on the contrast or conflict frequently alleged between the good of the individual and the good of the community. Ideally there would be no such conflict. For the good of the individual is what he ought to aim at, and this cannot be determined without reference to the way or form of life which is the good of the community. On the other hand, the ideals which enter into the general form of life, such as the enjoyment of bodily and mental health, the give and take of the affections, the appreciation of truth and beauty, are nothing if not lived and experienced by individuals. In actual fact, there are clashes in plenty. The clearest case is that which arises when there is a conflict between the various ideals within the same order of life or between some of the ideals and the entire order. In certain circumstances, for example, the security or survival of the whole order may demand the sacrifice of the life of individuals or of particular ideals, such as freedom of expression. In most other cases, I think, the conflict arises because there has been a failure of justice, either because the community has set itself false or illusory

ends which, in the last resort, will conduce to the good neither of the individual nor of the community, or because a dominant section within the community imposes its conception of the form of life upon the whole community and thus confuses a sectional good with the good of the community. The case of a moral innovator stands apart. for what he may desire is a radical change in the whole way of life. A tragic clash may then become unavoidable.

The problem of the relation between means and ends is now in the centre of discussion. It is often said that in the attitude to it is to be found the real line of division between the totalitarian and anti-totalitarians. The former, it is said, are ready to justify the use of any means, however repugnant to ordinary moral standards, provided they are deemed necessary to attain the end aimed at. Their opponents, on the other hand, it is alleged, hold that means in themselves bad ought not to be used to attain ends, however good.[13] As far as theoretical discussion is concerned, the opposition thus formulated would probably be rejected by both sides as too crude. Trotsky, for example, in an interesting discussion[14] insists on what he calls the "dialectical interdependence of means and ends." This is his way of stressing the point that no hard line can be drawn between means and ends, in particular that the end often changes in character as a result of the means adopted in its attainment and that therefore the means-end relationship must be viewed as a whole. This has often been insisted on by bourgeois philosophers, *nur mit ein bisschen andern Worten*. The real difference is not here. What may be called the liberal mind is characterised by an abhorrence of fanaticism, a greater readiness to count the cost in human lives and human happiness, a profounder awareness of the corroding and demoralising effects of violence on those who employ it, quite apart from its direct effect on those who suffer from it. There results a difference in moral attitude of profound importance, whether or not it implies a fundamental difference of principle in the theoretical formulation of the means-end relationship.

[13] Compare, however, the following remarks by Mr. Gallacher, writing as a Communist: "I will assert against all who argue otherwise that no good aim can be achieved by evil means." *Times*, Nov. 26th, 1948.

[14] Cf. *Their Morals and Ours*.

This matter cannot here be pursued further. I should, however, like to stress the point that the questions raised require for their solution not only deeper insight into ideals but also to even a greater extent fuller knowledge of the relevant facts. In considering, for example, the resort to force it is necessary to know at least (*a*) that its use is necessary and that the end cannot be attained in any other way, (*b*) that the end *can* be attained by force and (*c*) that the end will not be distorted and corrupted by its use and that this will not endanger other ends equally, or more, valuable. These are all questions of fact, and it is easy to see that on really critical occasions, for example in war or revolution, accurate knowledge is not at hand. Terrifying decisions then have to be made as a matter of "judgment" and the weighing of probabilities. The moral temper of those who have the last word then becomes all important.

The above illustrations are designed to show to what extent ideals can be rationally investigated. It is clear that to a very large extent such investigations turn on questions of fact. We need accurate knowledge of human needs and potentialities and of the ways in which men differ from one another in respect of such needs and potentialities. We need to know further what bearing or relevance these differences have on the allocation or distribution of the resources available and in what ways the means employed, including the mode of distribution, are likely to affect the ends and ideals aimed at. These are all mainly questions of fact and they fall within the scope of the social sciences. The ideals themselves and the definition of the general way of life in which they are graded and balanced are questions for the moral philosopher. His function is to elicit and clarify the ideals latent in the groping efforts of mankind towards equity and fairness in human relations. Whether any fundamental divergences in moral outlook will remain when the facts have been clarified and the ideals elucidated remains to be seen. The rationalist assumption is that ideals come within the scope of rational enquiry and that sufficient agreement can be reached in those spheres at least which call for collective action.

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1948. Oscar P. Wood, Magdalen College, Oxford.
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1939. Mrs. L. E. G. Worsley, c/o T. C. Worsley, New Statesman & Nation, 10, Gt. Turnstile, W.C.1.
1933. Prof. J. N. Wright, The University, St. Andrews.

1947. Paul Ziff 409, E. Buffalo St., Ithaca, New York.

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