

appropriately attached to the powerful general principles about love and aggression which are by that time already in existence. It is the profoundest of scientific principles that a theory must work in practice; and that applies to scientific ethics no less than to the latest modification of the quantum theory.

¹ Carnap, R., "Philosophy and Logical Syntax", Kegan Paul (1935), 24.

² Riviere, J., "Love, Hate and Reparation", Hogarth Press (1937), 9.

³ Wittgenstein, L., "Tractatus Logico-Philosophicus", Kegan Paul (1919), concluding sentence.

⁴ Freud, S., "The Ego and the Id." Cf. "General Selection from the Works of Sigmund Freud", Hogarth Press (1937), 259.

⁵ Freud, S., "New Introductory Lectures on Psycho-analysis", Hogarth Press (1933), 84.

⁶ Klein, M., "The Psycho-analysis of Children", Hogarth Press (1932), 195, 197.

⁷ Engels, F., "Feuerbach", Lawrence, n.d., 62.

⁸ Engels, F., "Feuerbach", Lawrence, n.d., 47.

⁹ Huxley, T. H., "Evolution and Ethics", Macmillan (1894), 83.

I FIND myself in fundamental agreement with Dr. Waddington, though I should base my argument on an epistemology more explicit than his own. To start off, I would aver, with Mach, that "bodies or things are compendious mental symbols for groups of sensations—symbols that do not exist outside of thought". The basis of all knowledge is experience. So-called external objects are constructs from experience: equally the doctrine of evolution and the view of the universe summed up in the Ten Commandments are constructs from experience. Of course, the experience may be partial: elements in it may be false (that is to say, unconfirmed by the majority of our fellow-men). The activity of the mind which links together elementary perceptions and fashions the constructed symbol may be inadequate to make a symbol which shall cohere with other symbols as we try to picture some wide region of the universe in which we find ourselves. But by a process of trial and error, in which the individual constantly checks his experience by that of others, the race has gradually created, among other ideas, those which we distinguish as external objects, laws of Nature and ethical principles.

We assume that there is an external world of objects to which our bodies belong. But, if that world exists, is our picture of it correct? We cannot say, for we cannot transcend human limitations. Are our scientific laws accurate? Probably not: they correspond, however, to humanity's present state of mental development. Can we say that our ethical standards and the commands by which we seek to make them effective are sound? They, too, are as partial, as transitory, as our supposed knowledge of the spiritual character of the universe.

Are then our scientific laws and our ethical principles of no value? By no means. They are

approximations to truth, nearer than those which were reached in the past and later modified or even discarded by the growing wisdom of the race.

Unfortunately, the problem of the mind-body relation is so intractable that it is difficult to say how far intellectual and ethical tendencies are inherited. I would agree with Dr. Waddington in affirming Goodrich's conclusion that all characters are both inherited and acquired. The genes carry certain modes of reaction to environment. A relatively homogeneous community is built of the same stock of genes changed to some extent by recurring mutations; and an individual born into it assimilates with especial ease the community's intellectual, social and ethical formulation of experience.

Is Dr. Waddington quite fair in his strictures of T. H. Huxley? The evolutionary process on earth, until the rise of the placental mammals with their increasing parental affection, was non-moral. "Nature red in tooth and claw" is an actual fact. Huxley was right in asserting that between man and the cosmic process as it has been, there ought to be war. The strongest objection to ethical theism lies in the fact that the creative process has been non-moral. But just as evolution has been a creative process in that new things, and in particular man himself, have emerged in it, so it may well be that the process itself is being transformed no longer, it may be, are new animal forms being evolved, but new levels of spiritual understanding are emerging. Boutroux died twenty years ago, but his "Religion and Science in Contemporary Philosophy" is not out of date. He said: "According to the results of science herself, there is nothing to guarantee the absolute stability of even the most general laws that man has been able to discover. Nature evolves, perhaps even fundamentally." He added that, if the remotest principles of things are thus transformed, that very transformation must obey laws which are analogous to the immediately observable laws of experiment. Are we wrong behind such change to find purposive activity, to postulate God as its source, and to see in the ethical change which results from the growth of human experience His progressive revelation of Himself?

E. W. BIRMINGHAM.

Bishop's Croft,
Birmingham.

COMMENT on Dr. Waddington's important and interesting paper is difficult because it raises so many questions which are highly controversial. Only a treatise could deal with them all. I must confine myself to some rather disconnected jottings. Frankly, I am not quite clear about the main

thesis. If it is that the natural sciences have a valuable contribution to make to the study of ethics, few would deny it; if it is, as I think, the contention that the central problem for ethics can be solved by the method of natural science, that seems to me a disastrous error. No doubt science can throw light on the way in which minds come to apprehend values but, as it seems to me, it cannot determine whether they are truly values or only appear to be such, nor can it determine the scale of values, if any.

A certain scepticism about some of the alleged findings of science may be permitted. For example, the super-ego appears to me to be a piece of useful mythology; probably it helps to "explain" the process by which we reach ethical maturity, but may it not be misleading to treat it as an "entity"? The important fact is that mature and sane men have ideals which, as they believe, commend themselves to their reason, and sometimes they have imaginary pictures of themselves as they know they ought to be. Again, the diversity of moral codes at different levels of civilization can be exaggerated. Virtues which are honoured among us, such as courage or even kindness, are honoured in crude and more limited forms by people of lower cultures. The development of moral ideas is not determined wholly by social condition; there is a dialectical development of the ideas themselves, and if it is true to say that societies create ideas, it is even more true to say that ideas create societies.

The use made of the psychological concept of "compulsions" perplexes me. As I understand it, a compulsion is an irrational and perhaps irresistible tendency arising from the unconscious. The moral experience in its authentic form is surely the opposite of a compulsion. The agent believes himself to have the responsibility of choice and the ethical "ought" is recognized not as something which must be obeyed but something which deserves to be obeyed, though it may be difficult and unpleasant. "Had it power (compulsion) as it has authority, it would absolutely rule the world." I am even more perplexed by what seems to be asserted about the goodness of evolution or even of all existence. "We must accept the direction of evolution as good simply because it is good." I think I must have failed to grasp this point, because in the preceding sentence we are told that revised ideas about evolution enable us to feel that it is not morally offensive, as T. H. Huxley thought it was. This seems to imply that Dr. Waddington has considered the course of evolution and found that it is not morally offensive. Now, how, on his own principle, could he possibly do that? What criterion did he apply? No doubt, as a theist I am bound to hold that there is a direction in evolution or rather that organic evolution is a

part, perhaps a very small part, of the Divine purpose, but I see no reason to suppose that at any given moment the actual direction of evolution is towards higher values, and this is pre-eminently the case when the process is largely determined by human will.

There is a most fundamental problem raised for ethics by the evolutionary hypothesis. I wish that Dr. Waddington had said more about it. Shortly it is this: evolution appears to suggest that all moral ideas are relative, but the moral consciousness regards some of them as absolute and unless it does so the moral life is simply abolished. We are confronted with the situation now in every home. There are some things of such value that men ought to be prepared to die for them; it is reasonable to be prepared to die for them. Why? Men answer with action and, it may be suspected, deplorably confused notions of ethical theory; but they act because, in their simple way, they believe that the voice of duty comes from a Source deeper and more intimate than the course of evolution.

W. R. MATTHEWS.

The Deanery,
St. Paul's,
London.

I JOIN issue with Dr. Waddington on two points. First, when he offers, as a typical example of a judgment that is at once ethical and scientific, the statement "You are an animal of such a kind that you must consume 7 mgm. of vitamin C per diem, and should consume 10 mgm." I see nothing ethical here at all. The rules acquire ethical significance only when in a given case I judge the effort after survival, to which it prescribes the means, to be morally right or wrong. If I am the father of a family and there is only a limited supply of vitamin C available, it may be my moral duty to throw the rule to the winds and forego the means to my survival. The 'must' of the rule is not the unconditional 'ought' of morality, but the condition of attaining an end, as to the morality of which the rule says nothing. The 'should' in the last clause is ambiguous; it may mean either 'you ought to' or merely 'you will have a better chance of surviving if you do'. The former meaning alone is ethical, but I fancy that Dr. Waddington intends the latter. He may reply that he sees no difference between the two, any more than when on a later page he identifies what is pleasurable or what leads to pleasurable results (two different matters, by the way) with what is good. We seem to be back in the dear old days of Herbert Spencer. Do fallacies never die, however often they are confuted? If 'you ought' is identical with 'you'd jolly well better', and if 'this is good' is only another way of saying 'I find this pleasant', then the moral consciousness