

SYMPOSIUM : THE DEVELOPMENT OF MORAL VALUES IN CHILDREN

VII—THE CONTRIBUTION OF LEARNING THEORY.

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SUMMARY. It is argued that moral values are learnt in the course of the child's development, and that consequently any theory regarding their development should be based on the known facts and principles of modern learning theory. An attempt has been made to do so by suggesting that 'conscience' is, in fact, a conditioned response built up during the child's formative years by the pairing of conditioned stimuli (arising from aggressive, predatory, and overtly sexual actions) and unconditioned stimuli (slaps, beatings, 'shaming', and other punishments) immediately following the conditioned stimulus. Aided by a process of *stimulus generalization* this should, in course of time, lead to an association between the conditioned stimulus and the fear-anxiety responses appropriate to the unconditioned stimulus. Certain deductions are made from this hypothesis and are shown to be supported by experimental evidence. It is argued in particular that if the hypothesis is correct, then individual differences in conditionability, i.e., the ease with which conditioned responses are formed, should be related to moral behaviour and the ease with which guilt feelings are aroused. Here also evidence is quoted to suggest that this hypothesis has some foundation in fact. It is concluded that the treatment which children, adolescents, and adults receive in response to immoral acts, should be based upon the recognition of individual differences between them, particularly with respect to their conditionability, as only in this way will the most beneficial results of such treatment be realized.

I.—PRELIMINARY CONSIDERATIONS.

THERE is little doubt that attitudes, interests and values are acquired through some process of learning or conditioning during the course of the individual's development, and it seems almost certain from the great deal of evidence accumulated by psychologists, and reviewed by earlier contributors to this symposium, that much of this process of learning takes place during childhood and possibly adolescence. If it is agreed that responses indicative of moral values, whether verbal or behavioural, are indeed, learned responses, then it would seem that modern learning theory, which is probably the most advanced part of psychology, should have a contribution to make to our understanding of their development. In what follows I have tried briefly to indicate the direction which such a contribution might take, and also to quote some experimental data which seem to support the position taken here.

There is an obvious dualism involved in talking about 'moral values'. We may be concerned with the *knowledge* of existing values in a society, and this can be verbally expressed in a questionnaire or an interview; this knowledge is not necessarily related to conduct although there does appear to be a slight tendency for such correlations to exist. Nevertheless, the delinquent child as well as the criminal adult is usually only too well aware of the *fact* that his conduct is contrary to moral precept; his evil-doing is not by and large due to ignorance.

The alternative method of defining the moral values of a person deals with his conduct, rather than with his knowledge, and it would seem that this approach is probably more fundamental and more fruitful than the other. Here also, however, we have a choice to make. We can deal with the matter at the observational and naturalistic level, i.e., by studying actual delinquencies as has been done for instance by Ackerson (1942), or by Hewitt and Jenkins (1946). Alternatively, we can make use of the experimental method, and study delinquent behaviour in the laboratory, in the classroom, or in strictly controlled conditions, as was done for instance in the famous Character Education Enquiry. In either case we discover that among children, adolescents and adults, there appears to be a range of delinquent behaviour from the person who never commits a delinquent or dishonest act, to the person who almost invariably does so. The task of the learning theorist is to account for this gradation in behaviour along the well established lines of learning theory.

Many people interested in the social consequences of crime put the fundamental question in the following way. They ask: "How is it that some people commit crimes when they know perfectly well that their acts are anti-social, and when they have also been taught that crime does not pay?" Such a way of looking at the problem appears to be the matter of putting the cart before the horse. Delinquent behaviour, i.e., the tendency to act out immediately and without restraint one's instinctual impulses, whether sexual, aggressive or predatory, is surely the natural way to act for animals and for young children; the question is: "Why and how do human beings learn to act in conformity with the dictates of society, however inconvenient and distressing these dictates may be, and however much they may conflict with the individual's biological needs and drives?"

It is often suggested that people refrain from immoral acts because of the fear of punishment. It is unlikely that this hypothesis can be taken very seriously. We know from learning theory that the effectiveness of reward and punishment is an *inverse function* of the time interval between act and reinforcement, and a *direct function* of the proportion of reinforcements. Now the one thing we do know about social punishment is that on both counts it fails to provide the necessary mechanism. Punishment usually occurs a long time after the event, sometimes years after, and it only occurs in a small proportion of cases. It is difficult, if not impossible, to give accurate figures about the relative numbers of crimes discovered and punished, as compared with those where the culprit goes free, but the ratio of reinforcement is almost certainly very low.

There are other reasons for doubting the effectiveness of punishment. The well-known and well substantiated Yerkes-Dodson Law tells us that while an increase in drive usually leads to an improvement in performance and learning, there is an optimal point beyond which an increase in drive leads to a *decrement* in performance and learning. The law also states that the more complex the task, the lower is the drive level at which this reversal occurs. Now the kind of punishment meted out by society is usually rather harsh and, therefore, has a high drive level, whereas the task to be learnt, i.e., behaving in conformity with the precepts of society, is obviously a very complex one. Conditions are, therefore, highly unfavourable for punishment to exert its desired influence.

II.—THE BASIS OF 'CONSCIENCE.'

These and many other reasons make it unlikely that the threat of punishment is the only or even the main reason for moral behaviour. The alternative

suggested by many writers has been a kind of interiorised policeman variously named conscience, 'inner light,' or *super-ego*.^{*} This is usually conceived as some kind of *deus ex machina* implanted in the human being in some mysterious way, which ceaselessly keeps an eye on his activities, and gives him a sharp tweak, whenever he deviates from the straight and narrow path of duty. Descriptively, this is probably not entirely an inaccurate account; the difficulty with it is that there is no known mechanism by means of which such an inner policeman could be called into being, and that the description does not give us any clues about the reasons why some people have a strong and tender conscience while others seem to be completely lacking in it. It is sometimes suggested that environment and teaching are responsible for the apparent individual differences, or that there might be an intellectual deficit which makes some people fail to respond to moral teaching. There is, of course, no doubt that environmental pressures play an important part in the growth of moral ideas and conduct, but such a hypothesis would not account for the frequently observed fact that even the best environment often produces psychopathic individuals apparently lacking completely in any 'inner guiding light,' while the very poorest environment does not by any means invariably produce criminals. Similarly, there is not very much relationship between lack of intelligence and criminality; what relation there is is more likely between low intelligence and likelihood of being found out!

The suggestion made here is a relatively simple one, namely, that *conscience is a conditioned anxiety response to certain types of situations and actions*. In the typical Pavlovian experiment, the dog, through simple pairing of conditioned stimulus (bell) and unconditioned stimulus (meat powder) learns to salivate to the bell, whereas previously it only salivated to the meat powder. Everyone is familiar with this experimental paradigm, and with the fact that similar conditioned responses, particularly of the autonomic nervous system, can be quite easily produced in human beings as well. There is ample evidence to show that anxiety is a conditioned fear response attached to a previously neutral stimulus. Watson's famous experiment with little Albert is probably too well known to need extensive retelling; he induced a phobia for furry animals in an 11-month old infant 'Albert,' who previously had been fond of such animals, by banging a metal bar with a hammer behind Albert's head whenever the infant reached out to pat a white rat (Watson and Raynor, 1920). Learning theory has formalised the rules according to which this conditioning takes place, but we need not be concerned with anything but the bare fact that *anxiety and fear responses can be conditioned in human beings with very great ease*. It is also to be noted that such conditioned responses, once they are formally established, do not extinguish by themselves in the course of time, but require an experimental process of *extinction* (Osgood, 1953.).

* The Freudian conception is concisely given in Freud's "General Introduction": "It is not to be doubted for a moment that one may recognize in the Oedipus-complex one of the most important sources for the consciousness of guilt with which neurotics are so often harrassed . . . Perhaps mankind as a whole has, at the beginning of its history, come by its consciousness of guilt, the final source of religion and morality, through the Oedipus complex." Perhaps. Even if the first part of this quotation had some factual reference, it would still not be clear how a phenomenon assumed to be of universal occurrence, like the Oedipus complex, could be used to account for individual differences in proneness to guilt feelings. Nor is it at all clear how such a theory could be experimentally or even observationally tested. Possibly one might deduce that boys brought up by widowers whose wives died in childbirth should all develop into psychopaths. At least they should stand in little danger of developing neurotic guilt feelings!

The application of this well-documented process to the development of moral behaviour can be briefly indicated in the following way. A young child behaves in a socially undesirable manner, i.e., by being aggressive, by indulging in overt sexual activity, by stealing, lying and cheating, or in whatever way anti-social behaviour is defined in a given society. There is an immediate sharp punishment—a slap, withdrawal of some privilege, ‘shaming’, exclusion from the family circle or whatever it may be. This punishment produces pain and fear and the associated autonomic disturbances; these in turn become attached to the *type of situation* and the *type of action* which called forth the punishment, thus producing a conditioned anxiety reaction whenever similar situations and actions re-occur.

It might be argued that surely identical situations never occur, but this objection is taken care of by the well-known fact of *stimulus generalisation*. Little Albert was taught to be afraid of a rat, but this conditioned fear generalised to rabbits and other furry animals. Stimulus generalisation, therefore, will account for the fact that not only identical but similar situations and actions will also call forth the conditioned anxiety response in the child which has been punished once or several times for certain types of misdemeanour. This process of generalisation is undoubtedly aided by the fact that parents often draw attention to similarities between different antisocial acts by a process of *labelling*. There is ample experimental evidence to show that generalisation of conditioned responses does proceed along verbal lines. Thus the subject who has formed a conditioned P.G.R. response to the word ‘cow’, because this word was in the past followed by an electric shock, will now have a conditioned P.G.R. response also to the names of other animals, such as ‘goat’; he will not, however, generalise responses to words such as ‘how’ which are, apparently, much more similar to the original conditioned stimulus from the point of view of sound.

We thus have a growing child in whom conditioned anxiety responses have been built up to anti-social behaviour in situations involving aggression, sex, etc. When temptation arises, there also arises the conditioned anxiety, and we, consequently, have some form of hedonic calculus involving not *present* satisfaction and *future* punishment (in which present satisfaction would almost certainly win), but rather *present satisfaction* in opposition to *present discomfort* as produced by the anxiety reaction in response to overt anti-social behaviour. If the conditioning has been strong enough, ‘conscience’ will win the day, and the individual will withdraw from the situations without giving way to ‘temptation.’ Even if he does give way to ‘temptation’ there will still be a strong anxiety reaction to detract from his enjoyment, thus making it less likely for him to react anti-socially on the next occasion.

It might be queried whether anxiety is in effect strong enough for this proposed role. When we consider that many people have committed suicide rather than suffer strong anxiety, and when we consider that criminals have, on many occasions, preferred to give themselves up and take their punishment, rather than continue to bear the anxiety produced by their crime, we may not feel so doubtful about the efficacy of the proposed mechanism or its strength. However, such facts, of course, do not provide proof of the hypothesis in question; they merely illustrate the strength which feelings of anxiety can reach. We must now turn to the evidence firmly supporting our hypothesis.

III.—INDIVIDUAL DIFFERENCES.

It is well-known that there is a group of people, not sharply segregated from the rest, but presumably continuous with the remainder of humanity, which is characterised by anti-social behaviour in almost pure culture. I am

referring, of course, to the so-called *psychopaths*, i.e., to children, adolescents and adults, who, in spite of often high intelligence and good up-bringing, seem to be completely lacking in moral sense—so much so that they have even been called *moral imbeciles*. They will lie, cheat, steal, rape, and indulge in any form of anti-social activity without apparent regard for consequence, and without regard for their victims. Such people will often commit criminal acts for the slightest of gains, and in situations where discovery and severe punishment are practically certain. Here is a group of people for whose behaviour no adequate theory has been put forward. Can our theory do better?

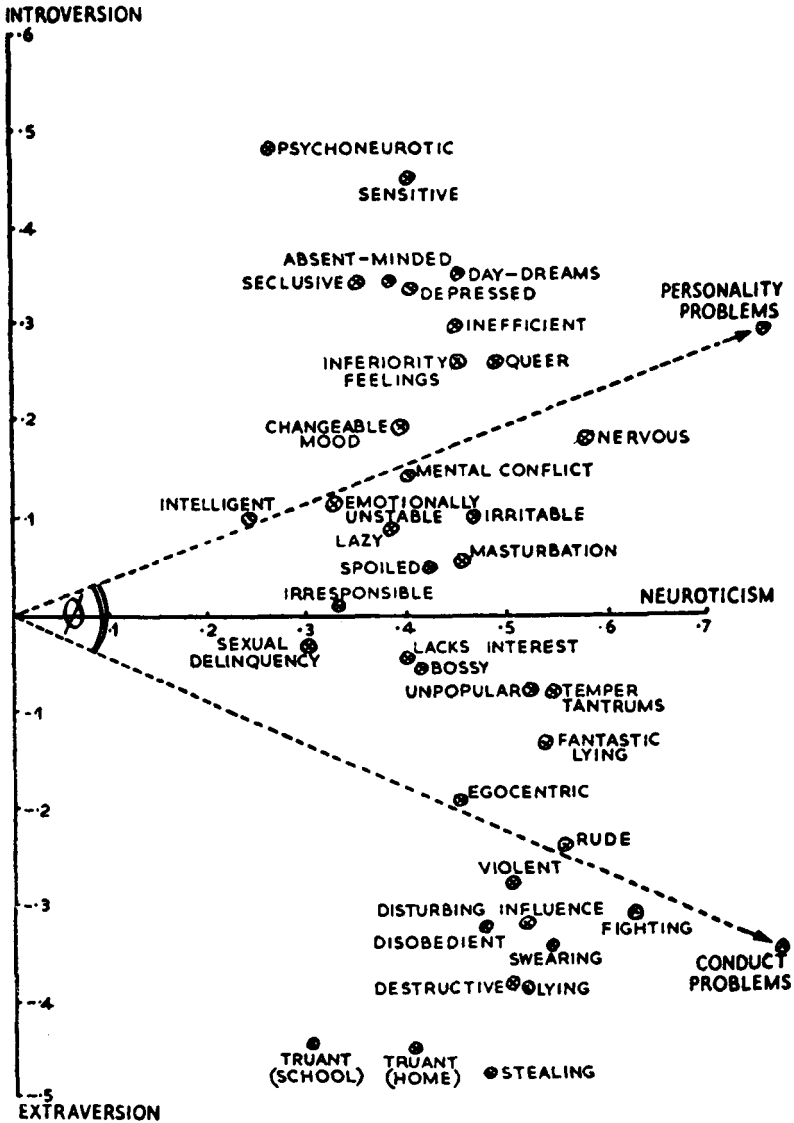
Let us note, first of all, that Pavlov already discovered very great individual differences in respect of *conditionability* between his dogs. Some dogs are very easy to condition, others very difficult, with the remainder in-between. This finding has been universally verified in the case of other animals, and also in the case of human beings. Differences in conditionability are by and large unrelated to such factors as age, sex and intelligence. If our theory is accurate, then we might be able to explain the behaviour of psychopaths by postulating that such people are endowed with a nervous system which is largely resistant to the formation of conditioned responses. If this were so, then the course of up-bringing would not suffice to produce in them the requisite anxiety responses, which we have postulated to lie as the basis of 'conscience.' It should be easy to test this hypothesis by attempting to condition psychopaths in the laboratory, and by comparing their success or failure with the responses made by an average group of people put in the same experimental situation. When this is done, the results very strongly bear out the hypothesis, and it is found that compared with a normal group of people, psychopaths are, indeed, very difficult to condition, requiring many more pairings of conditioned and unconditioned stimulus before any effect is seen (Lykken 1957, Eysenck, 1957). Results, therefore, are in accordance with our hypothesis.

We might put forward another hypothesis to complement the previous one. There is a group of people in society who are suffering from unduly strong anxieties related to stimuli which, in the normal person, do not arouse anxieties at all. These people suffer from fears of open spaces, fears of enclosed spaces, fears of animals, and so forth, without being able to give any rational account of their fears. Such people constitute the main group of neurotics, whether in-patients or out-patients, at our hospitals and clinics; they are sometimes known as 'anxiety states.' Such people also frequently show strong guilt feelings about actions which few people would regard as immoral or anti-social in any real sense of those terms. In other words, these people appear to have a conscience much more tender than the average person. In terms of our hypothesis we would expect such people to be particularly easy to condition; their symptoms and their behaviour could then be accounted for in terms of a too ready conditioning of fear responses to a large number of previously neutral conditioned stimuli (Cf. *ftn. p. 000*).

Again, the evidence strongly supports this view. The work of Spence (1956) Franks (1956, 1957), and many others (cf. Eysenck, 1957) shows that people suffering from anxiety states are more easily conditionable than the average run of people, and accordingly, we have a complementary piece of evidence showing that we can arrange human beings in a continuum of 'conditionability' from high to low, a continuum which runs parallel with a continuum of behaviour patterns going from hyper-moral through average to psychopathic and immoral. There is more evidence in favour of this hypothesis, and some of it has been quoted elsewhere (Eysenck, 1957). Instead of going into this additional evidence I would prefer to draw attention to another extension of this general scheme.

I have argued that the personality dimension, at the one extreme of which we have the psychopath, and at the other extreme of which we have the anxiety state, can be found not only in the emotional, anxious and neurotic type of personality, but also in the population as a whole, and I have suggested that we are, in fact, here dealing with the well-known extravert-introvert typology transferred into the field of neurosis and maladaptation. Figure 1 will illustrate

FIG. 1



this notion ; it is quoted from " The Structure of Human Personality " (Eysenck 1960) and it is a diagrammatical presentation of a factor analysis of fifty traits which had been correlated by Ackerson (1942) among several thousand children who had been studied at the Illinois Institution for Juvenile Research. It will be seen that of the items included, all have correlations with the general factor of neuroticism or emotional instability, but that there is a division along the lines of the second factor into *personality problems* characteristic of the introvert, and *conduct problems* characteristic of the extravert.

Much the same kind of result was found by Hewitt and Jenkins (1946) in a study of 500 problem children. When they correlated various notations from the case histories of these children, they found three main characteristics, ranging from 'unsocialized aggression' (the extraverted end) through 'socialized delinquency' to 'over-inhibited behaviour' (the introverted end). Other data are quoted in " The Structure of Human Personality," to support the existence of a general dimension of this nature. There is no direct evidence of a relationship between these behaviour patterns in children and their conditionability ; here would seem to be an area of research which could, with advantage, be pursued by those responsible for the moral welfare of children and for their disposal after they have come in contact with the law.*

Among adults, however, there is considerable evidence in the work of Franks (1956, 1957), and others (Eysenck, 1957) to show that there does exist a significant relationship between introversion and conditionability, even when extreme cases of psychopathy are not included in the neurotic sample, and even when quite ordinary normal subjects are being tested. In so far as our hypothesis deals with conduct and patterns of observable behaviour it must, I think, be concluded that we are on relatively safe ground in putting forward the hypothesis that *differences in conditionability determine in part the socialized or anti-social behaviour of children and adults alike.*

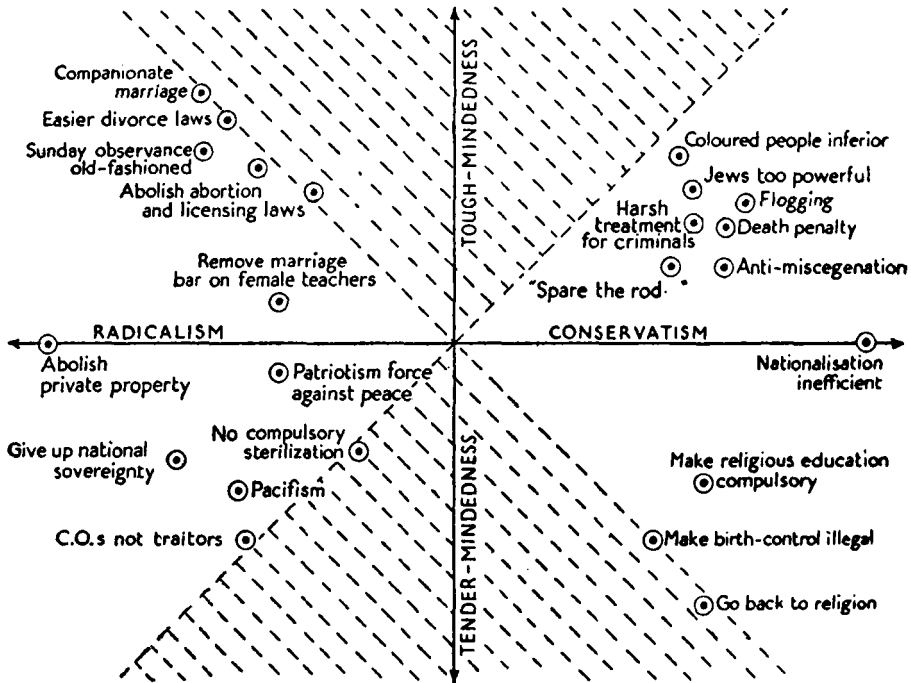
IV.—IMPLICATIONS OF THE THEORY.

Does the theory have anything to say about the more verbalized type of values and attitudes? An attempt has been made in *The Psychology of Politics* (Eysenck, 1954) to make certain deductions from the theory, and to test these objectively. It would seem to follow from the theory developed here that introverts would be more concerned with ethical and moral prohibitions, with religious ideas and quite generally with the erection of barriers against the direct and immediate satisfaction of instinctual and libidinal impulses. Conversely, it would seem to follow that extraverts would be more likely to favour the direct expression of sexual, aggressive, and other anti-social impulses and to be less concerned with ethical, moral and religious ideas. The proof of this

* The reader may wonder why both personality problems and conduct problems have such high loadings on neuroticism, and whether adult criminals too would be found to be neurotic. It would appear from some recent work done with the Maudsley Personality Inventory on recidivist criminals, that their neuroticism is indeed almost as high as that of hospitalized neurotics. Some learning theorists, particularly Spence, regard neuroticism or emotionality as a kind of drive variable (D), which according to Hull's theory, is multiplied by habit ($s^{\#}_R$) to produce behaviour ($s^{\#}_R$). If we regard, in a very rough-and-ready fashion, the extravert as a person in whom 'temptation' > 'conscience', whereas in the introvert 'temptation' < 'conscience', then the added drive produced by the emotionality-neuroticism variable might be thought to produce a much stronger reaction in the direction determined by the respective weight of these two influences. This is a highly speculative consideration and it would require a considerable amount of experimental work to decide if any real meaning is attached to it.

hypothesis requires two series of studies. In the first series, a number of correlation studies were carried out on the attitudes of quite large numbers of subjects towards a number of variegated social issues. When these attitudes were inter-correlated, they invariably gave rise to two main factors, the ever present one of radicalism-conservatism, which does not concern us here, and a second factor, independent of the first, the two poles of which were entitled tough-mindedness and tender-mindedness. The factor structure is illustrated in Figure 2, and it will be seen that tender-mindedness is a factor which appears to be characterised by those attitudes theoretically described as introverted, while tough-mindedness is made up of attitudes theoretically attributable to the extravert. Thus, a tough-minded person favours the overt expression of aggression (by flogging, death penalty, birching, etc.), towards out-groups (criminals, Jews, coloured people, etc.), and the overt indulgence in sexual activities (companionate marriage, easier divorce laws, the abolition of abortion laws). The tender-minded person has strongly favourable ideas towards religion and ethical ideals such as pacifism, etc. The first step in our proof, therefore, does not seem to contradict the hypothesis (Eysenck, 1954).

FIG. 2



As the second step, several studies have been carried out, as I have mentioned in the *Psychology of Politics*, showing that correlations do indeed exist between tender-mindedness and introversion on the one hand, and tough-mindedness and extraversion on the other. Some of these studies have been criticised because of the non-representative nature of the samples, and consequently, I have in a recent investigation, repeated this work on a

random sample of the population (Eysenck, 1960). The results were fully in line with those previously reported and seem to leave little doubt about the existence of some such relationship as that postulated. It would appear, therefore, that in the field of verbally expressed moral attitudes and ideas also the general hypothesis here put forward can make possible verifiable predictions.

It will, of course, be obvious to the reader that there is no intention, in sketching out this theory, to account for all criminal or immoral behaviour. The nature of such behaviour, and the manifold determining causes which are involved are too complex for any single factor theory to be acceptable to students of the field. It is obvious that individual differences in conditionability are important in deciding whether a particular conditioned response will or will not be established; it is equally obvious that for such a response to be established, even in the most easily conditioned person, there must first of all occur a *process of conditioning*, i.e., of pairing the conditioned and the unconditioned stimulus. Thus, in conditioning we are obviously involved in what one vaguely calls the *social factors* of character building, and it is clear that these differ from person to person, and probably quite generally from class to class. Thus, there is some evidence from American researches, particularly the work of Kinsey (1948) and the Chicago school, that lower-class groups lay far less emphasis on the extinction of overt aggressive and sexual reactions than do middle-class groups. In these circumstances we would expect quite a different pattern of behaviour in middle and working class boys, even if there were no differences in conditionability between them, and these differences are, indeed, found. (Cf. also Eysenck, 1951.)

Another point where environmental influences are clearly of the greatest importance is that relating to the strength of a given temptation which has to be overcome by the conditioned anxiety response we call 'conscience.' If, indeed, a person's reactions are determined by the respective strength of 'conscience' and 'temptation,' then clearly the same person may act morally on one occasion and immorally on another, depending on the degree of desire, hunger, anger, or whatever may be involved in the situation. A poor man, as has often been pointed out, is more likely to steal a loaf of bread than a rich man, because the temptation for him is so very much stronger; from comparing the actions of the rich and the poor in respect of stealing a loaf of bread, obviously no deductions can be made as to their likelihood to form conditioned responses easily. All these considerations will be obvious, but I have mentioned them briefly to avoid criticisms sometimes made of theories of this kind, to the effect that they do not take into account all the conditions of a complex social phenomenon.

Nevertheless, our theory demands that at least to some extent we should recognize, and be prepared to discover, *innate biological factors* determining in some degree the moral or immoral, criminal or non-criminal reactions of human beings to certain types of situations. Conditionability, presumably, is a function of certain features of the central nervous system, and as such is likely to owe much to heredity. Is there any evidence about the hereditary determination of crime? The important and, indeed, fundamental work of Lange (1931), Stumpfl (1936), and Kranz (1936) has shown that such hereditary determination can, indeed, be demonstrated very clearly. As is well-known, these investigators located prisoners who had a like-sexed fraternal or identical twin. They then investigated this twin to see whether or not he also had been convicted of a crime, and if so, whether his crime was similar to that of his sibling. They found a very considerable degree of concordance for identical twins, and

much less for fraternal twins ; it is difficult to interpret the evidence in any other way, but as a strong confirmation of the heredity hypothesis. This conclusion is well expressed in the title which Lange gave to his book : *Crime as Destiny*. It may be noted that J. B. S. Haldane wrote an introduction to this book in its English translation, in which he fully concurred with the author's conclusions ; this is relevant and important because of his expert knowledge in the field in genetics and because of his well-known political sympathies which would make him less likely to accept such conclusions with enthusiasm.

Do any practical suggestions follow from the theory here developed ? Two points seem to be worth making. In the first place, there has been far too little work of an experimental nature directly related to this problem to make it possible to decide with any degree of conviction as to the adequacy of the theory here presented. What is needed is a decade of concentrated experimentation before we shall be able to come to a conclusion with any degree of confidence. It would, therefore, appear to be premature to make any detailed practical suggestions ; these must await further qualification of theoretical issues and further experimental verification.

In the second place, however, it does seem to me that if there is any degree of truth at all in the theory here presented, then it does lend some support to the slogan that punishment should not fit the crime but the criminal. Perhaps we might amplify this a little and say that character education cannot and should not be a uniform process, but that it should take into account the individual personalities involved. This saying, of course, is a truism which has often been repeated ; what I am suggesting is that it can only cease to be a truism, and become a guide to action, when we know what are the parameters directly involved in moral actions, and how these parameters can be measured, and if possible, affected by our actions. If it were true that conditionability plays as important a role as I have suggested, then it would seem to follow that the maxim " spare the rod, spoil the child " could with advantage, be applied to the extraverted, possibly psychopathic, non-conditioner, whereas the modern free-and-easy methods of up-bringing would be much more appropriate to the introverted, anxious, easy-to-condition type of child. It may be possible that the acceptance of some such general rule might reduce the number of both behaviour problems and personal problems, which at the moment, appear to be increasing to such an alarming extent. However, on this point also much further research, possibly of an applied nature and carried out in the classroom, will be required before we can say for certain whether this suggestion is likely to have the consequences envisaged.

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(Manuscript received, March 20th, 1959.)