HERD INSTINCT AND ITS BEARING ON THE PSYCHOLOGY OF CIVILISED MAN.

I. INTRODUCTION.

Few subjects have led to discussion so animated and prolonged as has the definition of the science of sociology. It is therefore necessary, as it is hoped that this essay may be capable of sociological applications, that the writer should define the sense in which he uses the term. By calling it a science is of course denoted the view that sociology is a body of knowledge derived from experience of its material and co-ordinated so that it shall be useful in forecasting and, if possible, directing the future behaviour of that material. This material is man in society or associated man.

Sociology, therefore, is obviously but another name for psychology in the widest sense, for, that is to say, a psychology which can include all the phenomena of the mind without the exception even of the most complex, and is essentially practical in a fuller sense than any orthodox psychology which has yet appeared.

Sociology has, of course, often been described as social psychology and has been regarded as differing from ordinary psychology in being concerned with those forms of mental activity which man displays in his social relations, the assumption being made that society brings to light a special series of mental aptitudes with which ordinary psychology, dealing as it does essentially with the individual, is not mainly concerned. It may be stated at once that it is a principal thesis of this essay that this attitude is a fallacious one and has been responsible for the comparative sterility of the psychological method in sociology. The two fields—the social and the individual—are regarded here as absolutely continuous; all human psychology it is contended must be the psychology of associated man since man as a solitary animal is unknown to us, and every individual must present the characteristic reactions of the social animal if such exist. The only difference between the two branches of the science lies in the fact that ordinary psychology makes no claim to be practical in the sense of conferring useful foresight; whereas sociology does profess to deal with the complex unsimplified problems of ordinary life, ordinary life being by a biological necessity social life. If,

therefore, sociology is to be defined as psychology it would be better to call it practical or applied psychology than social psychology.

The first effect of the complete acceptance of this point of view is to render very obvious the difficulty and immensity of the task of sociology; indeed the possibility of such a science is sometimes denied. For example at an early meeting of the Sociological Society Professor Karl Pearson expressed the opinion that the birth of a science of sociology must await the obstetrical genius of some one man of the calibre of Darwin or Pasteur. At a later meeting Mr. H. G. Wells went further and maintained that as a science sociology not only does not but cannot exist.

Such scepticism appears in general to be based upon the idea that a practical psychology in the sense already defined is impossible. According to some this is because the human will introduces into conduct an element necessarily incommensurable, which will always render the behaviour of man subject to the occurrence of true variety and therefore beyond the reach of scientific generalisation; according to another and a more deterministic school, human conduct while not theoretically liable to true variety in the philosophic sense or to the intrusion of the will as a first cause, is in fact so complex that no reduction of it to a complete system of generalisations will be possible until science in general has made very great progress beyond its present position. Both views lead in practice to attitudes of equal pessimism towards sociology.

The observable complexity of human conduct is, undoubtedly, very great and discouraging. The problem of generalising from it presents however one important peculiarity which is not very evident at first sight. It is that as observers we are constantly pursued by man's own account of his behaviour; that of a given act our observation is always more or less mixed with a knowledge, derived from our own feelings, of how it seems to the author of the act, and it is much more difficult than is often supposed to disentangle and allow for the influence of this factor. Each of us has the strongest conviction that his conduct and beliefs are fundamentally individual and reasonable and in essence independent of external causation, and each is ready to furnish a series of explanations of his conduct consistent with these principles. These explanations, moreover, are the ones which will occur spontaneously to the observer watching the conduct of his fellows.

It is suggested here that the sense of the unimaginable

complexity and variability of human affairs is derived less than is generally supposed from direct observation and more from this second factor of introspectual interpretation which may be called a kind of anthropomorphism. A reaction against this in human psychology is no less necessary therefore than was in comparative psychology the similar movement the extremer developments of which are associated with the names of Bethe, Beer, Uexküll and Nuel. It is contended that it is this anthropomorphism in the general attitude of psychologists, which, by disguising the observable uniformities of human conduct has rendered so slow the establishment of a really practical psychology. Little as the subject has been studied from the point of view of a thorough-going objectivism, yet even now certain generalisations summarising some of the ranges of human belief and conduct might already be formulated. Such an enquiry, however, is not the purpose of this essay and these considerations have been advanced, in the first place, to suggest that theory indicates that the problem of sociology is not so hopelessly difficult as it at first appears, and secondly, as a justification for an examination of certain aspects of human conduct by the deductive method. The writer would contend that while that method is admittedly dangerous when used as a substitute for a kind of investigation in which deductive processes are reduced to a minimum, yet it has its special field of usefulness in cases where the significance of previously accumulated facts has been misinterpreted, or where the exacter methods have proved unavailing through the investigator having been without indications of precisely what facts were likely to be the most fruitful subject for measurement. This essay, then, will be an attempt to obtain by a deductive consideration of conduct some guidance for the application of those methods of measurement and co-ordination of facts upon which all true science is based.

A very little consideration of the problem of conduct makes it plain that it is in the region of feeling, using the term in its broadest sense, that the key is to be sought. Feeling has relations to instinct as obvious and fundamental as are the analogies between intellectual processes and reflex action; it is with the consideration of instinct, therefore, that this paper must now be occupied.

II. PSYCHOLOGICAL ASPECTS OF INSTINCT.

Many years ago in a famous chapter of his *Text Book of Psychology*, William James analysed and established with a quite

final delicacy and precision the way in which instinct appears to introspection. He shewed that the impulse of an instinct reveals itself as an axiomatically obvious proposition, as something which is so clearly "sense" that any idea of discussing its basis is foolish or wicked.*

When we recognise that decisions due to instinct come into the mind in a form so characteristic and easily identifiable we are encouraged at once to ask whether all decisions having this form must be looked upon as essentially of instinctive origin. Enquiry, however, reveals the fact that the bulk of opinion based upon assumptions having these introspectual characters is so vast that any answer but a negative one would seem totally incompatible with current conceptions of the nature of human thought.†

Many attempts have been made to explain the behaviour of man as dictated by instinct. He is in fact moved by the promptings of such obvious instincts as self-preservation, nutrition and sex enough to render the enterprise hopeful and its early spoils enticing. So much can so easily be generalised under these three impulses that the temptation to declare that all human behaviour could be resumed under them was irresistible. These early triumphs of materialism soon however began to be troubled by

* "Not one man in a billion, when taking his dinner, ever thinks of utility. He eats because the food tastes good and makes him want more. If you ask him why he should want to eat more of what tastes like that, instead of revering you as a philosopher he will probably laugh at you for a fool. The connexion between the savoury sensation and the act it awakens is for him absolute and *selbstverständlich*, an 'a priori synthesis' of the most perfect sort needing no proof but its own evidence. . . . To the metaphysician alone can such questions occur as: Why do we smile, when pleased, and not scowl? Why are we unable to talk to a crowd as to a single friend? Why does a particular maiden turn our wits so upside down? The common man can only say, "*Of course we smile, of course our heart palpitates at the sight of the crowd, of course we love the maiden, that beautiful soul clad in that perfect form, so palpably and flagrantly made from all eternity to be loved.*"—W. James, "Principles of Psychology," vol. xi, p. 386. The chapter was first impulses of instinct.

† This introspectual quality of the "a priori synthesis of the most perfect sort" is found, for example, in the assumptions upon which is based the bulk of opinion in matters of church and state, the family, justice, probity, honour, purity, crime and so forth. Yet clearly we cannot say that there is a specific instinct concerned with each of these subjects, for that, to say the least, would be to postulate an unimaginable multiplicity of instincts, for the most part wholly without any conceivable biological usefulness. For example, there are considerable difficulties in imagining an instinct for making people Wesleyans or Roman Catholics, or an instinct for making people regard British family life as the highest product of civilisation, yet there can be no question that these positions are based upon assumptions having all the characters described by James as belonging to the impulses of instinct.

doubt. Man, in spite of his obvious duty to the contrary, would continue so often not to preserve himself, not to nourish himself and to prove resistant to the blandishments of sex, that the attempt to squeeze his behaviour into these three categories began to involve an increasingly obvious and finally intolerable amount of pushing and pulling, as well as so much pretence that he was altogether 'in,' when, quite plainly, so large a part of him remained 'out,' that the enterprise had to be given up and it was once more discovered that man escaped and must always escape any complete generalisation by science.

A more obvious inference would have been that there was some other instinct which had not been taken into account, some impulse, perhaps, which would have no very evident object as regarded the individual but would chiefly appear as modifying the other instincts and leading to new combinations in which the primitive instinctive impulse was unrecognisable as such. A mechanism such as this very evidently would produce a series of actions in which uniformity might be very difficult to recognise by direct observation, but in which it would be very obvious if the characters of this unknown 'x' were available.

Now it is a striking fact that amongst animals there are some whose conduct can be generalised very readily in the categories of self-preservation, nutrition and sex, while there are others whose conduct cannot be thus summarised. The behaviour of the tiger and the cat is simple, and easily comprehensible, presenting no unassimilable anomalies, whereas that of the dog with his conscience, his humour, his terror of loneliness, his capacity for devotion to a brutal master, or that of the bee with her selfless devotion to the hive furnishes phenomena which no sophistry can assimilate without the aid of a fourth instinct. But little examination will shew that the animals whose conduct it is difficult to generalise under the three primitive instinctive categories are gregarious. If then it can be shewn that gregariousness is of a biological significance approaching in importance that of the other instincts we may expect to find in it the source of these anomalies of conduct, and if we can also shew that man is gregarious we may look to it for the definition of the unknown 'x' which might account for the complexity of human behaviour.

III. BIOLOGICAL SIGNIFICANCE OF GREGARIOUSNESS.

The animal kingdom presents two relatively sudden and very striking advances in complexity and in the size of the unit upon

which natural selection acts unmodified. These advances consist in the aggregation of units which were previously independent and exposed to the full normal action of natural selection, and the two instances are, of course, the passage from the unicellular to the multicellular and from the solitary to the social.

It is obvious that in the multicellular organism individual cells lose some of the capacities of the unicellular—reproductive capacity is regulated and limited, nutrition is no longer possible in the old simple way and response to stimuli comes only in certain channels. In return for these sacrifices we may say, metaphorically, that the action of natural selection is withdrawn from within the commune. Unfitness of a given cell or group of cells can only be eliminated through its effect upon the whole organism. The latter is less sensitive to the vagaries of a single cell than is the organism of which the single cell is the whole. It would seem, therefore, that there is now allowed a greater range of variability for the individual cells, and perhaps, therefore, an increased richness of the material to be selected from. Variations, moreover, which were not immediately favourable, would now have a chance of surviving.

Looked at in this way multicellularity presents itself as an escape from the rigour of natural selection which for the unicellular organism had narrowed competition to so desperate a struggle that any variation outside the straitest limits was fatal, for even though it might be favourable in one respect it would, in so small a kingdom, involve a loss in another. The only way, therefore, for further advantageous elaboration to occur was by the enlargement of the competing unit. Various species of multicellular organisms might in time be supposed in turn to reach the limit of their powers. Competition would be at its maximum, smaller and smaller variations would be capable of producing serious results. In the species where these conditions prevail an enlargement of the unit is imminent if progress is to occur. It is no longer possible by increases of physical complexity and the apparently inevitable sequence is the appearance of gregariousness. The necessity and inevitableness of the change are shewn by its scattered development in very widely separated regions (for example, in insects and in mammals) just as, we may suspect, multicellularity appeared.

Gregariousness seems frequently to be regarded as a somewhat superficial character, scarcely deserving, as it were, the name of an instinct, advantageous it is true, but not of fundamental im-

portance or likely to be deeply ingrained in the inheritance of the species. This attitude may be due to the fact that among mammals at any rate the appearance of gregariousness has not been accompanied by any very gross physical changes which are obviously associated with it.*

To whatever it may be due, this method of regarding the social habit is, in the opinion of the present writer, not justified by the facts and prevents the attainment of conclusions of considerable fruitfulness.

A study of bees and ants shews at once how fundamental the importance of gregariousness may become. The individual in such communities is completely incapable, often physically, of existing apart from the community and this fact at once gives rise to the suspicion that even in communities less closely knit than those of the ant and the bee the individual may in fact be more dependent on communal life than appears at first sight.

Another very striking piece of general evidence of the significance of gregariousness as no mere late acquirement is the remarkable coincidence of its occurrence with that of exceptional grades of intelligence or the possibility of very complex reactions to environment. It can scarcely be regarded as an unmeaning accident that the dog, the horse, the ape, the elephant and man are all social animals. The instances of the bee and the ant are perhaps the most amazing. Here the advantages of gregariousness seem actually to outweigh the most prodigious differences of structure, and we find a condition which is often thought of as a mere habit, capable of enabling the insect nervous system to compete in the complexity of its power of adaptation with that of the higher vertebrates.

If it be granted that gregariousness is a phenomenon of profound biological significance and one likely therefore to be responsible for an important group of instinctive impulses, the next step in our argument is the discussion of the question as to whether man is to be regarded as gregarious in the full sense of the word, whether, that is to say, the social habit may be expected to furnish him with a mass of instinctive impulse as mysteriously potent as the impulses of self-preservation, nutrition and sex. Can we look to the social instinct for an explanation of some of the "*a priori* syntheses of the most perfect sort needing no proof but their own evidence" which are not explained by

* Among gregarious insects there are of course physical changes arising out of and closely dependent on the social organisation.

the three primitive categories of instinct, and remain stumbling blocks in the way of generalising the conduct of man.

The conception of man as a gregarious animal is, of course, extremely familiar; one frequently meets with it in the writings of psychologists and sociologists and it has obtained a respectable currency with the lay public. It has indeed become so hackneyed that it is the first duty of a writer who maintains the thesis that its significance is not even yet fully understood, to shew that the popular conception of it has been far from exhaustive. As used hitherto the idea seems to have had a certain vagueness which greatly impaired its practical value. It furnished an interesting analogy for some of the behaviour of man, or was enunciated as a half serious illustration by a writer who felt himself to be in an exceptionally sardonic vein, but it was not at all widely looked upon as a definite fact of biology which must have consequences as precise and a significance as ascertainable as the secretion of the gastric juice or the refracting apparatus of the eye. One of the most familiar attitudes was that which regarded the social instinct as a late development. The family was looked upon as the primitive unit; from it developed the tribe and by the spread of family feeling to the tribe the social instinct arose. It is interesting that the psychological attack upon this position has been anticipated by sociologists and anthropologists, and that it is already being recognised that an undifferentiated horde rather than the family must be regarded as the primitive basis of human society.

The most important consequence of this vague way of regarding the social habit of man has been that no exhaustive investigation of its psychological corollaries has been carried out. When we see the enormous effect in determining conduct that the gregarious inheritance has in the bee, the ant, the horse or the dog, it is quite plain that if the gregariousness of man had been seriously regarded as a definite fact a great amount of work would have been done in determining precisely what reactive tendencies it had marked out in man's mind. Unfortunately, the amount of precise work of this kind has been very small.

From the biological standpoint the probability of gregariousness being a primitive and fundamental quality in man seems to be considerable. As already pointed out, like the other great enlargement of the biological unit, but in a much more easily recognisable degree, it would appear to have the effect of enlarging the advantages of variation. Varieties not immediately favourable,

varieties departing widely from the standard, varieties even unfavourable to the individual may be supposed to be given by it a chance of survival. Now the course of the development of man seems to present many features incompatible with its having proceeded amongst isolated individuals exposed to the unmodified action of natural selection. Changes so serious as the assumption of the upright posture, the reduction in the jaw and its musculature, the reduction in the acuity of smell and hearing, demand, if the species is to survive, either a delicacy of adjustment with the compensatingly developing intelligence so minute as to be almost inconceivable, or the existence of some kind of protective enclosure, however imperfect, in which the varying individuals may be sheltered from the direct influence of natural selection. The existence of such a mechanism would compensate losses of physical strength in the individual by the greatly increased strength of the larger unit, of the unit, that is to say, upon which natural selection still acts unmodified.

A realisation, therefore, of this function of gregariousness relieves us from the necessity of supposing that the double variations of diminishing physical and increasing mental capacity always occurred *pari passu*. The case for the primitiveness of the social habit would seem to be still further strengthened by a consideration of such widely aberrant developments as speech and the æsthetic activities but a discussion of them here would involve an unnecessary indulgence of biological speculation.

IV. MENTAL CHARACTERISTICS OF THE GREGARIOUS ANIMAL.

(a) *Current Views in Sociology and Psychology.*

If we now assume that gregariousness may be regarded as a fundamental quality of man, it remains to discuss the effects we may expect it to have produced upon the structure of his mind. It would be well, however, first, to attempt to form some idea of how far investigation has already gone in this direction. It is of course clear that no complete review of all that has been said concerning a conception so familiar can be attempted here, and, even if it were possible, it would not be a profitable enterprise, as the great bulk of writers have not seen in the idea anything to justify a fundamental examination of it. What will be done here, therefore, will be to mention a few representative writers who have dealt with the subject, and to give in a summary way the characteristic features of their exposition.

As far as I am aware, the first person to point out any of

the less obvious biological significance of gregariousness was Professor Karl Pearson.*

He called attention to the enlargement of the selective unit affected by the appearance of gregariousness, and to the fact that therefore within the group the action of natural selection becomes modified. This conception had, as is well known, escaped the insight of Haeckel, of Spencer and of Huxley, and Pearson shewed into what confusions in their treatment of the problems of society these three had been led by the oversight.† For example may be mentioned the famous antithesis of the "cosmical" and the "ethical" processes expounded in Huxley's Romanes Lecture. It was quite definitely indicated by Pearson that the so-called ethical process, the appearance, that is to say, of altruism, is to be regarded as a directly instinctive product of gregariousness, and as natural, therefore, as any other instinct.

These very clear and valuable conceptions do not seem, however, to have received from biologists the attention they deserved, and as far as I am aware their author has not continued further the examination of the structure of the gregarious mind, which would undoubtedly have yielded in his hands further conclusions of equal value.

We may next examine the attitude of a modern sociologist. I have chosen for this purpose the work of an American sociologist, Lester Ward, and propose briefly to indicate his position as it may be gathered from his book entitled "Pure Sociology."‡

The task of summarising the views of any sociologist seems to me to be rendered difficult by a certain vagueness in outline of the positions laid down, a certain tendency for a description of fact to run into an analogy, and an analogy to fade into an illustration. It would be discourteous to doubt that these tendencies are necessary to the fruitful treatment of the material of sociology, but, as they are very prominent in connection with

* Many references to the subject will be found in his published works, for example in "The Grammar of Science," in "National Life from the Standpoint of Science," and in "The Chances of Death." In the collection of Essays last named, the essay entitled "Socialism and Natural Selection" deals most fully with the subject.

† "Socialism and Natural Selection" in "The Chances of Death."

‡ Lester F. Ward. "Pure Sociology: a Treatise on the Origin and Spontaneous development of Society" New York. The Macmillan Co. 1903. I do not venture to decide whether this work may be regarded as representative of orthodox sociology, if there be such a thing; I have made the choice because of the author's capacity for fresh and ingenious speculation, and his obviously wide knowledge of sociological literature.

the subject of gregariousness, it is necessary to say that one is fully conscious of the difficulties they give rise to, and feels that they may have led one into unintentional misrepresentation.

With this proviso it may be stated that the writings of Ward produce the feeling that he regards gregariousness as furnishing but few precise and primitive characteristics of the human mind. The mechanisms through which group "instinct" acts would seem to be to him largely rational processes, and group instinct itself is regarded as a relatively late development more or less closely associated with a rational knowledge that it "pays." For example, he says, "For want of a better name, I have characterised this social instinct, or instinct of race safety, as religion, but not without clearly perceiving that it constitutes the primordial undifferentiated plasm out of which have subsequently developed all the more important human institutions. This . . . if it be not an instinct, is at least the human homologue of animal instinct, and served the same purpose *after the instincts had chiefly disappeared*, and when the egotistic reason would otherwise have rapidly carried the race to destruction in its mad pursuit of pleasure for its own sake."*

That gregariousness has to be considered amongst the factors shaping the tendencies of the human mind has long been recognised by the more empirical psychologists. In the main, however, it has been regarded as a quality perceptible only in the characteristics of actual crowds, that is to say, assemblies of persons being and acting in association. This conception has served to evoke a certain amount of valuable work in the observation of the behaviour of crowds.†

Owing, however, to the failure to investigate as the more essential question the effects of gregariousness in the mind of the normal individual man, the theoretical side of crowd psychology has remained incomplete and relatively sterile.

There is, however, one exception, in the case of the work of Boris Sidis. In a book entitled "The Psychology of Suggestion" ‡ he has described certain psychical qualities as necessarily

* "Pure Sociology," p. 134. Italics not in original. Passages of a similar tendency will be found on pp. 200 and 556.

† For example, the excellent little book of Gustave Le Bon—"Psychologie des Foules," Paris: Felix Alcan—in which are formulated many generalisations of great usefulness.

‡ "The Psychology of Suggestion: a Research into the subconscious nature of Man and Society," by Boris Sidis, with an Introduction by Prof. Wm. James. New York. 1903.

associated with the social habit in the individual as in the crowd. His position, therefore, demands some discussion. The fundamental element in it is the conception of the normal existence in the mind of a subconscious self. This subconscious or subwaking self is regarded as embodying the "lower" and more obviously brutal qualities of man. It is irrational, imitative, credulous, cowardly, cruel, and lacks all individuality, will and self control.* This personality takes the place of the normal personality during hypnosis and when the individual is one of an active crowd, as, for example, in riots, panics, lynchings, revivals, and so forth.

Of the two personalities—the subconscious and the normal—the former alone is suggestible; the successful operation of suggestion implies the recurrence, however transient, of a disaggregation of personality, and the emergence of the subwaking self as the controlling mind (pp. 89 and 90). It is this suggestibility of the subwaking self which enables man to be a social animal. "Suggestibility is the cement of the herd, the very soul of the primitive social group . . . . Man is a social animal, no doubt, but he is social because he is suggestible. Suggestibility, however, requires disaggregation of consciousness, hence society presupposes a cleavage of the mind. Society and mental epidemics are intimately related; for the social gregarious self is the suggestible subconscious self" (p. 310).

Judged from our present standpoint, the most valuable feature of Sidis' book is that it calls attention to the undoubtedly intimate relation between gregariousness and suggestibility. The mechanism, however, by which he supposes suggestibility to come into action is more open to criticism. The conception of a permanent subconscious self is one to which it is doubtful whether the evidence compels assent.† The essential difference, however, which Sidis' views present from those to be developed below, lies in his regarding suggestibility as being something which is liable to intrude upon the normal mind as the result of a disaggregation of consciousness, instead of as a necessary quality of every normal mind, continually present, and an inalienable accompaniment of human thought. A careful reading of his book gives a very clear

* "Psychology of Suggestion," p. 295.

† In this connexion the "Symposium on the Subconscious" in the "Journal of Abnormal Psychology," vol. ii, Nos. 1 and 2, is of much interest. The discussion is contributed to by Münsterberg, Ribot, Jastrow, Pierre Janet and Morton Prince.

impression that he looks upon suggestibility as a disreputable and disastrous legacy of the brute and the savage, undesirable in civilised life, opposed to the satisfactory development of the normal individuality, and certainly in no way associated at its origin with a quality so valuable as altruism. Moreover, one gets the impression that he regards suggestibility as being manifested chiefly, if not solely, in crowds, in panics, revivals, and in conditions generally in which the element of close association is well marked.

(b) Deductive Considerations.

The functions of the gregarious habit in a species may broadly be defined as offensive or defensive, or both. Whichever of these modes it has assumed in the animal under consideration, it will be correlated with effects which will be divisible into two classes—the general characteristics of the social animal, and the special characteristics of the form of social habit possessed by the given animal. The dog and the sheep illustrate well the characteristics of the two simple forms of gregariousness—offensive and defensive.

I. Special Characteristics of the Gregarious Animal.

These need not be dealt with here, as they are the qualities which for the most part have been treated of by psychologists in such work as has been done on the corollaries of gregariousness in man. This is because they are qualities which are most evident in man's behaviour when he acts in crowds, and are then evident as something temporarily superadded to the possibilities of the isolated individual. Hence it has come about that they have been taken for the most part as constituting the whole of man's gregarious inheritance, while the possibility that that inheritance might have equally important consequences for the individual has been relatively neglected.

II. General Characteristics of the Gregarious Animal.

The cardinal quality of the herd is homogeneity. It is clear that the great advantage of the social habit is to enable large numbers to act as one, whereby in the case of the hunting gregarious animal strength in pursuit and attack is at once increased to beyond that of the creatures preyed upon,* and in

* The wolf pack forms an organism, it is interesting to note, stronger than the lion or the tiger; capable of compensating for the loss of members; inexhaustible in pursuit, and therefore capable by sheer strength of hunting down without wile or artifice the fleetest animals; capable finally of consuming all the food it kills, and thus possessing another considerable advantage over the large solitary carnivora in not tending uselessly to exhaust its food supply. The advantages of the social habit in carnivora is well shown by the survival of wolves in civilised countries even to-day.

protective socialism the sensitiveness of the new unit to alarms is greatly in excess of that of the individual member of the flock.

To secure these advantages of homogeneity, it is evident that the members of the herd must possess sensitiveness to the behaviour of their fellows. The individual isolated will be of no meaning, the individual as part of the herd will be capable of transmitting the most potent impulses. Each member of the flock tending to follow his neighbour, and in turn to be followed, each is in some sense capable of leadership; but no lead will be followed that departs widely from normal behaviour. A lead will only be followed from its resemblance to the normal. If the leader go so far ahead as definitely to cease to be in the herd, he will necessarily be ignored.

The original in conduct, that is to say resistiveness to the voice of the herd, will be suppressed by natural selection; the wolf which does not follow the impulses of the herd will be starved; the sheep which does not respond to the flock will be eaten.

Again, not only will the individual be responsive to impulses coming from the herd, but he will treat the herd as his normal environment. The impulse to be in and always to remain with the herd will have the strongest instinctive weight. Anything which tends to separate him from his fellows, as soon as it becomes perceptible as such, will be strongly resisted.

So far, we have regarded the gregarious animal objectively. We have seen that he behaves as if the herd were the only environment in which he can live, that he is especially sensitive to impulses coming from the herd, and quite differently affected by the behaviour of animals not in the herd. Let us now try to estimate the mental aspects of these impulses. Suppose a species in possession of precisely the instinctive endowments which we have been considering to be also self-conscious, and let us ask what will be the forms under which these phenomena will present themselves in its mind. In the first place, it is quite evident that impulses derived from herd feeling will enter the mind with the value of instincts—they will present themselves as “*a priori* syntheses of the most perfect sort needing no proof but their own evidence.” They will not, however, it is important to remember, necessarily always give this quality to the same specific acts, but will shew this great distinguishing characteristic that they may give to *any opinion whatever* the characters of instinctive belief, making it into an “*a priori synthesis*,” so that we shall expect to find acts which it would be absurd to look

upon as the results of specific instincts carried out with all the enthusiasm of instinct, and displaying all the marks of instinctive behaviour. The failure to recognise this appearance of herd impulse as a tendency, as a power which can confer instinctive sanctions on any part of the field of belief or action, has prevented the social habit of man from attracting as much of the attention of psychologists as it might profitably have done.

In interpreting into mental terms the consequences of gregariousness, we may conveniently begin with the simplest. The conscious individual will feel an unanalysable primary sense of comfort in the actual presence of his fellows, and a similar sense of discomfort in their absence. It will be obvious truth to him that it is not good for the man to be alone. Loneliness will be a real terror, insurmountable by reason.

Again, certain conditions will become secondarily associated with presence with, or absence from, the herd. For example, take the sensations of heat and cold. The latter is prevented in gregarious animals by close crowding, and experienced in the reverse condition; hence it comes to be connected in the mind with separation, and so acquires altogether unreasonable associations of harmfulness. Similarly, the sensation of warmth is associated with feelings of the secure and salutary. It has taken medicine many thousands of years to begin to doubt the validity of the popular conception of the harmfulness of cold; yet to the psychologist such a doubt is immediately obvious.*

Slightly more complex manifestations of the same tendency to homogeneity are seen in the desire for identification with the herd in matters of opinion. Here we find the biological explanation of the ineradicable impulse mankind has always displayed towards segregation into classes. Each one of us in his opinions and his conduct, in matters of dress, amusement, religion and politics, is compelled to obtain the support of a class, of a herd within the herd. The most eccentric in opinion or conduct is, we may be sure, supported by the agreement of a class, the smallness of which accounts for his apparent eccentricity, and the preciousness of which accounts for his fortitude in defying general opinion. Again, anything which tends to emphasise difference from the

*Anyone who has watched the behaviour of the dog and the cat towards warmth and cold cannot have failed to notice the effect of the gregarious habit on the former. The cat displays a moderate liking for warmth, but also a decided indifference to cold, and will quietly sit in the snow in a way which would be impossible to the dog.

herd is unpleasant. In the individual mind there will be an unanalysable dislike of the novel in action or thought. It will be 'wrong,' 'wicked,' 'foolish,' 'undesirable,' or as we say 'bad form,' according to varying circumstances which we can already to some extent define.

Manifestations relatively more simple are shewn in the dislike of being conspicuous, in shyness and in stage fright. It is, however, sensitiveness to the behaviour of the herd which has the most important effects upon the structure of the mind of the gregarious animal. This sensitiveness is, as Sidis has clearly seen, closely associated with the suggestibility of the gregarious animal, and therefore with that of man. The effect of it will clearly be to make acceptable those suggestions which come from the herd, and those only. It is of especial importance to note that this suggestibility is not general, and that it is only herd suggestions which are rendered acceptable by the action of instinct. Man is, for example, notoriously insensitive to the suggestions of experience. The history of what is rather grandiosely called human progress everywhere illustrates this. If we look back upon the development of some such thing as the steam-engine, we cannot fail to be struck by the extreme obviousness of each advance, and how obstinately it was refused assimilation until the machine almost invented itself.

Again, of two suggestions, that which the more perfectly embodies the voice of the herd is the more acceptable. The chances an affirmation has of being accepted could therefore be most satisfactorily expressed in terms of the bulk of the herd by which it is backed.

It follows from the foregoing that anything which dissociates a suggestion from the herd will tend to ensure such a suggestion being rejected. For example, an imperious command from an individual known to be without authority is necessarily disregarded, whereas the same person making the same suggestion in an indirect way so as to link it up with the voice of the herd will meet with success.

It is unfortunate that in discussing these facts it has been necessary to use the word suggestibility, which has so thorough an implication of the abnormal. If the biological explanation of suggestibility here set forth be accepted, the latter must necessarily be a normal quality of the human mind. To believe must be an ineradicable natural bias of man, or in other words an affirmation, positive or negative, is more readily accepted than rejected,

unless its source is definitely dissociated from the herd. Man is not, therefore, suggestible by fits and starts, not merely in panics and in mobs, under hypnosis, and so forth, but always, everywhere, and under any circumstances. The capricious way in which man reacts to different suggestions has been attributed to variations in his suggestibility. This in the opinion of the present writer is an incorrect interpretation of the facts which are more satisfactorily explained by regarding the variations as due to the differing extent to which suggestions are identified with the voice of the herd.

Man's resistiveness to certain suggestions, and especially to experience, as is seen so well in his attitude to the new, becomes therefore but another evidence of his suggestibility, since the new has always to encounter the opposition of herd tradition.

The apparent diminution in direct suggestibility with advancing years, such as was demonstrated in children by Binet, is in the case of the adult familiar to all, and is there usually regarded as evidence of a gradually advancing organic change in the brain. It can be regarded, at least plausibly, as being due to the fact that increase of years must bring an increase in the accumulations of herd suggestion, and so tend progressively to fix opinion.

In the early days of the human race, the appearance of the faculty of speech must have led to an immediate increase in the extent to which the decrees of the herd could be promulgated, and the field to which they applied. Now the desire for certitude is one of profound depth in the human mind, and possibly a necessary property of any mind, and it is very plausible to suppose that it led in these early days to the whole field of life being covered by pronouncements backed by the instinctive sanction of the herd. The life of the individual would be completely surrounded by sanctions of the most tremendous kind. He would know what he might and might not do, and what would happen if he disobeyed. It would be immaterial if experience confirmed these beliefs or not, because it would have incomparably less weight than the voice of the herd. Such a period is the only trace perceptible by the biologist of the Golden Age fabled by the poet, when the things happened as they ought, and hard facts had not begun to vex the soul of man. In some such condition we still find the Central Australian native. His whole life, to its minutest detail, is ordained for him by the voice of the herd, and he must not, under the most dreadful sanctions,

step outside its elaborate order. It does not matter to him that an infringement of the code under his very eyes is not followed by judgment, for with tribal suggestion so compactly organised, such cases are in fact no difficulty, and do not trouble his belief, just as in more civilised countries apparent instances of malignity in the reigning deity are not found to be inconsistent with his benevolence.

Such must everywhere have been primitive human conditions, and upon them reason intrudes as an alien and hostile power, disturbing the perfection of life, and causing an unending series of conflicts.

Experience, as is shewn by the whole history of man, is met by resistance because it invariably encounters decisions based upon instinctive belief, and nowhere is this fact more clearly to be seen than in the way in which the progress of science has been made.

In matters that really interest him, man cannot support the suspense of judgment which science so often has to enjoin. He is too anxious to feel certain to have time to know. So that we see of the sciences, mathematics appearing first, then astronomy, then physics, then chemistry, then biology, then psychology, then sociology—but always the new field was grudged to the new method, and we still have the denial to sociology of the name of science. Nowadays, matters of national defence, of politics, of religion, are still too important for knowledge, and remain subjects for certitude, that is to say, in them we still prefer the comfort of instinctive belief, because we have not learnt adequately to value the capacity to foretell.

Direct observation of man reveals at once the fact that a very considerable proportion of his beliefs are non-rational to a degree which is immediately obvious without any special examination, and with no special resources other than common knowledge. If we examine the mental furniture of the average man, we shall find it made up of a vast number of judgments of a very precise kind upon subjects of very great variety, complexity and difficulty. He will have fairly settled views upon the origin and nature of the universe, and upon what he will probably call its meaning; he will have conclusions as to what is to happen to him at death and after, as to what is and what should be the basis of conduct. He will know how the country should be governed, and why it is going to the dogs, why this piece of legislation is good, and that bad. He will have strong views upon military

and naval strategy, the principles of taxation, the use of alcohol and vaccination, the treatment of influenza, the prevention of hydrophobia, upon municipal trading, the teaching of Greek, upon what is permissible in art, satisfactory in literature, and hopeful in science.

The bulk of such opinions must necessarily be without rational basis, since many of them are concerned with problems admitted by the expert to be still unsolved, while as to the rest it is clear that the training and experience of no average man can qualify him to have any opinion upon them at all. The rational method adequately used would have told him that on the great majority of these questions there could be for him but one attitude—that of suspended judgment.

In view of the considerations that have been discussed above, this wholesale acceptance of non-rational belief must be looked upon as normal. The mechanism by which it is effected demands some examination, since it cannot be denied that the facts conflict noticeably with popularly current views as to the part taken by reason in the formation of opinion.

It is clear at the outset that these beliefs are invariably regarded by the holder as rational, and defended as such, while the position of one who holds contrary views is held to be obviously unreasonable. The religious man accuses the atheist of being shallow and irrational, and is met by a similar reply; to the Conservative, the amazing thing about the Liberal is his incapacity to see reason and accept the only possible solution of public problems. Examination reveals the fact that the differences are not due to the commission of the mere mechanical fallacies of logic, since these are easily avoided, even by the politician, and since there is no reason to suppose that one party in such controversies is less logical than the other. The difference is due rather to the fundamental assumptions of the antagonists being hostile, and these assumptions are derived from herd suggestion; to the Liberal, certain basal conceptions have acquired the quality of instinctive truth, have become "*a priori* syntheses," because of the accumulated suggestions to which he has been exposed, and a similar explanation applies to the atheist, the Christian and the Conservative. Each, it is important to remember, finds in consequence the rationality of his position flawless, and is quite incapable of detecting in it the fallacies which are obvious to his opponent, to whom that particular series of assumptions has not been rendered acceptable by herd suggestion.

To continue further the analysis of non-rational opinion, it should be observed that the mind rarely leaves uncriticised the assumptions which are forced on it by herd suggestion, the tendency being for it to find more or less elaborately rationalised justifications of them. This is in accordance with the enormously exaggerated weight which is always ascribed to reason in the formation of opinion and conduct, as is very well seen, for example, in the explanation of the existence of altruism as being due to man seeing that it "pays."

It is of cardinal importance to recognise that in this process of the rationalisation of instinctive belief, it is the belief which is the primary thing, while the explanation, although masquerading as the cause of the belief, as the chain of rational evidence on which the belief is founded, is entirely secondary, and but for the belief would never have been thought of. Such rationalisations are often, in the case of intelligent people, of extreme ingenuity, and may be very misleading unless the true instinctive basis of the given opinion or action is thoroughly understood.

This mechanism enables the English lady, who, to escape the stigma of having normal feet, subjects them to a formidable degree of lateral compression, to be aware of no logical inconsequence when she subscribes to missions to teach the Chinese lady how absurd it is to compress her feet longitudinally; it enables the European lady who wears rings in her ears to smile at the barbarism of the coloured lady who wears *her* rings in her nose; it enables the Englishman who is amused by the African chieftain's regard for the top hat as an essential piece of the furniture of state to ignore the identity of his own behaviour when he goes to church beneath the same tremendous ensign.

The objectivist finds himself compelled to regard these and similar correspondences between the behaviour of civilised and barbarous man as no mere interesting coincidences, but as phenomena actually and in the grossest way identical, but such an attitude is only possible when the mechanism is understood by which rationalisation of these customs is effected.

The process of rationalisation which has just been illustrated by some of its simpler varieties is best seen on the largest scale, and in the most elaborate form, in the pseudosciences of political economy and ethics. Both of these are occupied in deriving from eternal principles justifications for masses of non-rational belief which are assumed to be permanent merely because they exist.

Hence the notorious acrobatic feats of both in the face of any considerable variation in herd belief.

It would seem that the obstacles to rational thought which have been pointed out in the foregoing discussion have received much less attention than should have been directed towards them. To maintain an attitude of mind which could be called scientific in any complete sense, it is of cardinal importance to recognise that belief of affirmations sanctioned by the herd is a normal mechanism of the human mind, and goes on however much such affirmations may be opposed by evidence, that reason cannot enforce belief against herd suggestion, and finally that totally false opinions may appear to the holder of them to possess all the characters of rationally verifiable truth, and may be justified by secondary processes of rationalisation which it may be impossible directly to combat by argument.

It should be noticed, however, that verifiable truths may acquire the potency of herd suggestion, so that the suggestibility of man does not necessarily or always act against the advancement of knowledge. For example, to the student of biology the principles of Darwinism may acquire the force of herd suggestion through being held by the class which he most respects, is most in contact with, and the class which has therefore acquired suggestionising power with him. Propositions consistent with these principles will now necessarily be more acceptable to him, whatever the evidence by which they are supported, than they would be to one who had not been exposed to the same influences. The opinion in fact may be hazarded that the acceptance of any proposition is invariably the resultant of suggestive influences, whether the proposition be true or false, and that the balance of suggestion is usually on the side of the false, because, education being what it is, the scientific method—the method, that is to say, of experience has so little chance of acquiring suggestionising force.

Thus far sensitiveness to the herd has been discussed in relation to its effect upon intellectual processes. Equally important effects are traceable in feeling.

It is obvious that when free communication is possible by speech, the expressed approval or disapproval of the herd will acquire the qualities of identity or dissociation from the herd respectively. To know that he is doing what would arouse the disapproval of the herd will bring to the individual the same profound sense of discomfort which would accompany actual

physical separation, while to know that he is doing what the herd would approve will give him the sense of rightness, of gusto and of stimulus which would accompany physical presence in the herd and response to its mandates. In both cases it is clear that no actual expression by the herd is necessary to arouse the appropriate feelings, which would come from within and have, in fact, the qualities which we recognise in the dictates of conscience. Conscience then and the feelings of guilt and of duty are the peculiar possessions of the gregarious animal. A dog and a cat caught in the commission of an offence will both recognise that punishment is coming; but the dog moreover knows that he has done *wrong*, and he will come to be punished, unwillingly it is true, and as if dragged along by some power outside him, while the cat's sole impulse is to escape. The rational recognition of the sequence of act and punishment is equally clear to the gregarious and to the solitary animal, but it is the former only who understands that he has committed a *crime*, who has in fact the *sense of sin*. That this is the origin of what we call conscience is confirmed by the characteristics of the latter which are accessible to observation. Any detailed examination of the phenomena of conscience would lead too far to be admissible here. Two facts, however, should be noticed. First, the judgments of conscience vary in different circles, and are dependent on local environments; secondly, they are not advantageous to the species to the slightest degree beyond the dicta of the morals current in the circle in which they originate. These facts—stated here in an extremely summary way—demonstrate that conscience is an indirect result of the gregarious instinct, and is in no sense derived from a special instinct forcing men to consider the good of the race rather than individual desires.

W. TROTTER.