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## BOOK REVIEWS.

FOUNDATIONS OF SOCIOLOGY. By Edward Alsworth Ross. New York: Macmillan Co. 1005. 12mo, pp. 410.

One of the chief effects of the christening of sociology with this name in 1842 was that for a full generation thereafter more arrant nonsense was written upon the subject than had been written in any previous period of several times that length. Numbers of unaccountable and invariable laws of sequence of social phenomena were announced; while on the other hand such writers as Ferrier and Goldwin Smith denied the possibility of any science of history. It was certainly an advance upon this state of things when Mr. Lester Frank Ward, in 1883, inaugurated the doctrine that sociology rests upon psychology, that the only social forces are the desires of individual men, and that these are controllable just as physical forces are controllable. It was an undeniable advance even though it involved some error. It is true that individual impulses are the only social forces to the same extent as it is true that the characters of any race of animals are the characters of the individual animals of that race. But is this quite true? Every census of the United States shows that among the native whites there are a few more males under one year of age than there are of females, (in 1900 as 38 to 37), while among the negroes it is the other way (in 1900, as 102 to 103). Here is a characteristic of each race, as it lives in the United States. Yet it cannot properly be called a characteristic of individual whites and negroes, though it is a character of statistics of individuals. It might be said that the causes of statistical characters lie in the individuals. But this would be a confusion of thought due to not remarking that a noun in the plural number does not denote the same sort of object as the same noun in the singular, but a collection of such objects. For most nouns and for most purposes the distinction is insignificant. But for the noun "individual" it is highly important. A character of individuals which is not a character of any one individual is a character of a collection of which any member is an individual. It is not an individual character, but is a collective character; just as the character of a molecule is not a character of an atom, just as a character of an ocean wave is not a character of sea-water.

Professor Ross is a close adherent of the position of Dr. Ward. If our readers will permit us to use the word "impulse" to denote that real determination of man's nature to which desire corresponds in consciousness, Professor Ross's opinion is easily explained. He holds it to be axiomatical that nothing but individual desires are the sole true causes of all social phenomena,

unless external circumstances be called causes. "How differently," he exclaims, "should we conceive the tasks of crystallography if we could question the molecules and learn just why they comport themselves as they do! How otherwise should we describe chemical processes if the atoms could tell us of the affinities they obey!" These exclamation-marks bespeak an absence of doubt which is not easily reconcilable with much reflection on the subject. For upon the same principle it should not be personal desires, at all, that are the true causes of action, but the impulses of the individual cells of the person's body. It is hard to imagine how atoms think. Let us rather consider the case of those insects which take the most sedulous care to lay their eggs where their progeny will find suitable food, although neither they themselves nor any insect of their species has any experience of such eggs producing any living creature. If such an insect could tell us why she took such pains about the place in which she deposited her eggs, we know pretty surely what she would say. She would say, "I do it because I want to," or if she were of a metaphysical turn of mind, she might reply with the hysteron proteron that she did it because it afforded her gratification, the truth being more nearly that it affords her gratification because she has an impulse to do it. She certainly would not dream of giving the biologist's answer, that she does it because the instincts of her race suffice for the preservation of the stock. Is her answer so much more adequate an explanation than this of the biologist as Professor Ross's exclamation-points would imply? If we are asked how we know that she would answer as we have said, we reply that we infer that she would because men give analogous answers. Ask a man why he does something, why he entertains the purpose that he alleges in reply, and push your interrogatories, and you will very soon come upon one of those forms of desire which are common to all men, and of which the individuals have no explanation to offer. But such instinctive desires seem, in all cases, to be favorable to the preservation of the stock. Thus, a drunkard drinks "because he wants to drink"; and it seems to be conducive to the preservation of the race that he should go on drinking, since he will so diminish the number of his probable offspring that will reproduce in their turn. Professor Ross would no doubt say that the drunkard's desire for drink, like the insect's desire to lay her eggs in a peculiar case, is a first cause of which no explanation will ever be possible. Few psychologists will agree with him. He does not perceive that a proposition asserting that every social law has this or that character is itself the enunciation of a true or false social law, and furthermore of a law which does not consist in individual desires; so that, if any such proposition be true, there must be at least one social law which does not consist in individual desires.

Professor Ross raises another objection against the logic of every general law which has been put forward and which does not consist in individual desire. The objection is that all such laws "rely unduly" upon the analogies of other sciences. But how does he prove this extraordinary law that a sociological law suggested by a similar law in another science is necessarily false? He professes to prove it by the analogy of other sciences. So here is a law resting solely on the analogy of other sciences which law declares that every other law like itself is false,—for no doubt it makes an exception in its own favor. But there are three very substantial replies to be made to this

sweeping objection. The first is that, so far is Professor Ross from historical truth when he says that "no recognized science borrows its laws from other departments of knowledge," that there are very few sciences which have not passed through crises in which the fogies have made a great outcry against the analogical extension of some principle from another department of study; and these crises have for the most part resulted in the confirmation of the analogy. Thus, paleontology originated in a violent protest against those who proposed to explain fossils by the analogy of the skeletons and other remains of known animals and plants. One of the crises of astronomy came when certain astronomers proposed to extend the "natural motion" of terrestrial bodies to the celestial bodies. The fogies insisted that "nothing was gained" by comparing two kinds of bodies so radically different. Physiology had its crisis when explanations of vital phenomena were first drawn from the analogies of inorganic physics and chemistry. Chemistry had its crisis when organic bodies were first explained as analogous to inorganic bodies, and organic chemistry was thus reduced to the science of carbon-compounds. Logic had one crisis when it was explained by the analogy of quantitative algebra; and it had another when the logic of relations was explained by the analogy of Boole's algebra of logic. Optics saw a struggle when it was proposed to explain light by the analogy of waves. So it runs all through science.

The second reply to the above objection should be prefaced by the remark that the analogical extension of a principle from one science to another does not take place according to that form of argument to which a strict ethics of terminology requires that the term "the argument from analogy" should be limited. That argument occurs when there are a number of objects. A. B., C, D, etc., and a number of characters a, b, c, d, etc., each of which characters is possessed by each of those objects, and when there are an additional object Z, and an additional character z, such that Z is known to possess each of the characters a, b, c, d, etc., and z is known to belong to all the objects A, B, C, D, etc. These premises constitute a relatively strong probable argument that Z possesses the character, z.

But there is seldom or never any argument of this strength, at the outset, to support the extension of a principle from one science to another. In the first instance, an examination of facts shows some of them to have a character which they certainly or probably would have if the extension were valid. This is an argument of a kind that has been called an abduction. It suffices only to show that the facts are more or less like what they would be if the theory of the validity of the extension were true. In that sense, and in that sense only, this argument from consequent to antecedent renders the theory "likely." It suggests that theory, and prompts an inductive investigation. This inductive investigation must not, like the abduction, begin with a scrutiny of the facts, but with a scrutiny of the theory, in order to find necessary consequences of it which are capable of being compared with the facts. In other words, it requests the theory that is on trial to predict the results of observations yet to be made, and which it should be able to predict if it be a true theory. When some considerable predictions based on the theory have been verified, while none have been falsified, the theory ought to be regarded as provisionally established. Now it cannot be disputed that the inductive testing of sociological theories by predictions or quasi-predictions has usually been of a very slight kind; and it may be that Professor Ross, with his intimate acquaintance with sociological literature may be able to specify cases in which the mere abductive argument has been offered as sufficient proof. But as far as the reviewer is aware, it never has been pretended that it had any value other than as a suggestion. Now Professor Ross himself admits that "the extension into the social sphere of regularities discovered in other fields has greatly helped to bring order out of chaos." That being the case, he has altogether failed to show that there is any definite sense in which his wholesale condemnation of a general "undue reliance" upon analogy has any justification.

The third reply to Professor Ross's objection to the "undue reliance" upon analogy,-that is, upon the mere abductive argument,-is that he has not, with all his great learning, been able to adduce a single marked example of such least intention of defending the truth of those laws. We think the evidence of them is flimsy. But we do protest that they do not exemplify uradue reliance upon abductive reasoning, since they do not take their rise in the observation of analogies, but in an a priori argument that in the nature of things there must be such analogies. Spencer maintains that a society is, and must be, built up of individuals, just as the individual is built up of cells, and therefore there must be a perfect parallelism between the laws of individual phenomena and of social phenomena. He thereupon proceeds to trace out this parallelism in detail, and finally he offers more or less inductive evidence in confirmation of it. One may deem such an argument stronger or weaker than if it relied upon observed analogies; but it certainly has a widely different character from such an argument and altogether fails to illustrate that "undue reliance" upon an observed analogy of which Professor Ross complains.

We certainly should not have gone to the trouble of making the above criticism if it were not that, in spite of them, Professor Ross's work is a strong and valuable one. The style is sufficiently simple and agreeable, and is occasionally sightened by an apt metaphor or telling phrase. "Race suicide" of white we have heard so much is a term of Professor Ross's invention. The book carries the reader along, and gives not merely the author's own views but all the chief general sociological theories of the day in such a way as to impart a lively interest in each one singly, and still more in the disputes to which their conflicts give rise. In this respect, Professor Ross shows a talent that is all his own. The book is moreover rich in ill ustrative facts; and our readers will thank us for calling their attention to it.

C. S. I

THE WORLD'S DESIRES, OR THE RESULTS OF MONISM. By Edgar A. Ashcroft. London: Kegan Paul, Trench, Trübner & Co., 1905. Pp. xi, 4-40.

Edgar A. Ashcroft is an Englishman who possesses sufficient earnestness and boldness to treat the religious problem with frankness and enthusiasm, a case which is quite unusual in England if we except the small party of free-thinkers who excel mainly in negativism and combativeness.

The title of the book is explained in the following paragraph quoting from the end of the Introduction:

"The sum of the best products of the world's thought and the world's