

Chapter II.

Classification Of Fallacies.

§ 1. In attempting to establish certain general distinctions which shall mark out from one another the various kinds of Fallacious Evidence, we propose to ourselves an altogether different aim from that of several eminent thinkers, who have given, under the name of Political or other Fallacies, a mere enumeration of a certain number of erroneous opinions; false general propositions which happen to be often met with; *loci communes* of bad arguments on some particular subject. Logic is not concerned with the false opinions which people happen to entertain, but with the manner in which they come to entertain them. The question is not, what facts have at any time been erroneously supposed to be proof of certain other facts, but what property in the facts it was which led any one to this mistaken supposition.

When a fact is supposed, though incorrectly, to be evidentiary of, or a mark of, some other fact, there must be a cause of the error; the supposed evidentiary fact must be connected in some particular manner with the fact of which it is deemed evidentiary--must stand in some particular relation to it, without which relation it would not be regarded in that light. The relation may either be one resulting from the simple contemplation of the two facts side by side with one another, or it may depend on some process of mind, by which a previous association has been established between them. Some peculiarity of relation, however, there must be; the fact which can, even by the wildest aberration, be supposed to prove another fact, must stand in some special position with regard to it; and if we could ascertain and define that special position, we should perceive the origin of the error.

We can not regard one fact as evidentiary of another, unless we believe that the two are always, or in the majority of cases, conjoined. If we believe A to be evidentiary of B, if when we see A we are inclined to infer B from it, the reason is because we believe that wherever A is, B also either always or for the most part exists, either as an antecedent, a consequent, or a concomitant. If when we see A we are inclined not to expect B--if we believe A to be evidentiary of the absence of B--it is because we believe that where A is, B either is never, or at least seldom, found. Erroneous conclusions, in short, no less than correct conclusions, have an invariable relation to a general formula, either expressed or tacitly implied. When we infer some fact from some other fact which does not really prove it, we either have admitted, or, if we maintained consistency, ought to admit, some groundless general proposition respecting the conjunction of the two phenomena.

For every property, therefore, in facts, or in our mode of considering facts, which leads us to believe that they are habitually conjoined when they are not, or that they are not when in reality they are, there is a corresponding kind of Fallacy; and an enumeration of fallacies would consist in a specification of those properties in facts, and those peculiarities in our mode of considering them, which give rise to this erroneous opinion.

§ 2. To begin, then; the supposed connection, or repugnance, between the two facts, may either be a conclusion from evidence (that is, from some other proposition or propositions), or may be admitted without any such ground; admitted, as the phrase is, on its own evidence; embraced as self-evident, as an axiomatic truth. This gives rise to the first great distinction, that between Fallacies of Inference and Fallacies of Simple Inspection. In the latter division must be included not only all cases in which a proposition is believed and held for true, literally without any extrinsic evidence, either of specific experience or general reasoning; but those more frequent cases in which simple inspection creates a *presumption* in favor of a proposition; not sufficient for belief, but sufficient to cause the strict principles of a regular induction to be dispensed with, and creating a predisposition to believe it on evidence which would be seen to be insufficient if no such presumption existed. This class, comprehending the whole of what may be termed Natural Prejudices, and which I shall call indiscriminately Fallacies of Simple Inspection or Fallacies *a priori*, shall be placed at the head of our list.

Fallacies of Inference, or erroneous conclusions from supposed evidence, must be subdivided according to the nature of the apparent evidence from which the conclusions are drawn; or (what is the same thing) according to the particular kind of sound argument which the fallacy in question simulates. But there is a distinction to be first drawn, which does not answer to any of the divisions of sound arguments, but arises out of the nature of bad ones. We may know exactly what our evidence is, and yet draw a false conclusion from it; we may conceive precisely what our premises are, what alleged matters of fact, or general principles, are the foundation of our inference; and yet, because the premises are false, or because we have inferred from them what they will not support, our conclusion may be erroneous. But a case, perhaps even more frequent, is that in which the error arises from not conceiving our premises with due clearness, that is (as shown in the preceding Book(229)), with due fixity: forming one conception of our evidence when we collect or receive it, and another when we make use of it; or unadvisedly, and in general unconsciously, substituting, as we proceed, different premises in the place of those with which we set out, or a different conclusion for that which we undertook to prove. This gives existence to a class of fallacies which may be justly termed (in a phrase borrowed from Bentham) Fallacies of Confusion; comprehending, among others, all those which have their source in language, whether arising from the vagueness or ambiguity of our terms, or from casual associations with them.

When the fallacy is not one of Confusion, that is, when the proposition believed, and the evidence on which it is believed, are steadily apprehended and unambiguously expressed, there remain to be made two cross divisions. The Apparent Evidence may be either particular facts, or foregone generalizations; that is, the process may simulate either simple Induction or Deduction; and again, the evidence, whether consisting of supposed facts or of general propositions, may be false in itself, or, being true, may fail to bear out the conclusion attempted to be founded on it. This gives us first, Fallacies of Induction and Fallacies of Deduction, and then a subdivision of each of these, according as the supposed evidence is false, or true but inconclusive.

Fallacies of Induction, where the facts on which the induction proceeds are erroneous, may be termed Fallacies of Observation. The term is not strictly accurate, or, rather, not accurately co-extensive with the class of fallacies which I propose to designate by it. Induction is not always grounded on facts immediately observed, but sometimes on facts inferred; and when these last are erroneous, the error may not be, in the literal sense of the term, an instance of bad observation, but of bad inference. It will be convenient, however, to make only one class of all the inductions of which the error lies in not sufficiently ascertaining the facts on which the theory is grounded; whether the cause of failure be malobservation, or simple non-observation, and whether the malobservation be direct, or by means of intermediate marks which do not prove what they are supposed to prove. And in the absence of any comprehensive term to denote the ascertainment, by whatever means, of the facts on which an induction is grounded, I will venture to retain for this class of fallacies, under the explanation now given, the title of Fallacies of Observation.

The other class of inductive fallacies, in which the facts are correct, but the conclusion not warranted by them, are properly denominated Fallacies of Generalization; and these, again, fall into various subordinate classes or natural groups, some of which will be enumerated in their proper place.

When we now turn to Fallacies of Deduction, namely those modes of incorrect argumentation in which the premises, or some of them, are general propositions, and the argument a ratiocination; we may of course subdivide these also into two species similar to the two preceding, namely, those which proceed on false premises, and those of which the premises, though true, do not support the conclusion. But of these species, the first must necessarily fall under some one of the heads already enumerated. For the error must be either in those premises which are general propositions, or in those which assert individual facts. In the former case it is an Inductive Fallacy, of one or the other class; in the latter it is a Fallacy of Observation; unless, in either case, the erroneous premise has been assumed on simple inspection, in which case the fallacy is *a priori*. Or, finally, the premises, of whichever kind they are, may never have been conceived in so distinct a manner as to produce any clear consciousness by what means they were arrived at; as in the case of what is called

reasoning in a circle; and then the fallacy is one of Confusion.

There remain, therefore, as the only class of fallacies having properly their seat in deduction, those in which the premises of the ratiocination do not bear out its conclusion; the various cases, in short, of vicious argumentation, provided against by the rules of the syllogism. We shall call these, Fallacies of Ratiocination.

§ 3. We must not, however, expect to find that men's actual errors always, or even commonly, fall so unmistakably under some one of these classes, as to be incapable of being referred to any other. Erroneous arguments do not admit of such a sharply cut division as valid arguments do. An argument fully stated, with all its steps distinctly set out, in language not susceptible of misunderstanding, must, if it be erroneous, be so in some one of these five modes unequivocally; or indeed of the first four, since the fifth, on such a supposition, would vanish. But it is not in the nature of bad reasoning to express itself thus unambiguously. When a sophist, whether he is imposing on himself or attempting to impose on others, can be constrained to throw his sophistry into so distinct a form, it needs, in a large proportion of cases, no further exposure.

In all arguments, everywhere but in the schools, some of the links are suppressed; *a fortiori* when the arguer either intends to deceive, or is a lame and inexperienced thinker, little accustomed to bring his reasoning processes to any test; and it is in those steps of the reasoning which are made in this tacit and half-conscious, or even wholly unconscious manner, that the error oftenest lurks. In order to detect the fallacy, the proposition thus silently assumed must be supplied; but the reasoner, most likely, has never really asked himself what he was assuming; his confuter, unless permitted to extort it from him by the Socratic mode of interrogation, must himself judge what the suppressed premise ought to be in order to support the conclusion. And hence, in the words of Archbishop Whately, "it must be often a matter of doubt, or, rather, of arbitrary choice, not only to which genus each *kind* of fallacy should be referred, but even to which kind to refer any one *individual* fallacy; for since, in any course of argument, *one* premise is usually suppressed, it frequently happens in the case of a fallacy, that the hearers are left to the alternative of supplying *either* a premise which is *not true*, or *else*, one which *does not prove* the conclusion; *e.g.*, if a man expatiates on the distress of the country, and thence argues that the government is tyrannical, we must suppose him to assume *either* that 'every distressed country is under a tyranny,' which is a manifest falsehood, *or* merely that 'every country under a tyranny is distressed,' which, however true, proves nothing, the middle term being undistributed." The former would be ranked, in our distribution, among fallacies of generalization, the latter among those of ratiocination. "Which are we to suppose the speaker meant us to understand? Surely" (if he understood himself) "just whichever each of his hearers might happen to prefer: some might assent to the false premise; others allow the unsound syllogism."

Almost all fallacies, therefore, might in strictness be brought under our fifth class, Fallacies of Confusion. A fallacy can seldom be absolutely referred to any of the other classes; we can only say, that if all the links were filled up which should be capable of being supplied in a valid argument, it would either stand thus (forming a fallacy of one class), or thus (a fallacy of another); or at furthest we may say, that the conclusion is most *likely* to have originated in a fallacy of such and such a class. Thus, in the illustration just quoted, the error committed may be traced with most probability to a fallacy of generalization; that of mistaking an uncertain mark, or piece of evidence, for a certain one; concluding from an effect to some one of its possible causes, when there are others which would have been equally capable of producing it.

Yet, though the five classes run into each other, and a particular error often seems to be arbitrarily assigned to one of them rather than to any of the rest, there is considerable use in so distinguishing them. We shall find it convenient to set apart, as Fallacies of Confusion, those of which confusion is the most obvious characteristic; in which no other cause can be assigned for the mistake committed, than neglect or inability to state the question properly, and to apprehend the evidence with definiteness and precision. In the remaining four classes I shall place not only the cases in which the evidence is clearly seen to be what it is, and yet a wrong conclusion drawn from it, but also those in which, although there be confusion, the confusion is not the sole cause of the error, but there is some shadow of a ground for it in the nature of the evidence itself. And in

distributing these cases of partial confusion among the four classes, I shall, when there can be any hesitation as to the precise seat of the fallacy, suppose it to be in that part of the process in which, from the nature of the case, and the tendencies of the human mind, an error would in the particular circumstances be the most probable.

After these observations we shall proceed, without further preamble, to consider the five classes in their order.