

## "MATTER-OF-FACT" LOGIC.

In his review of Mr. Carveth Read's *Essay on the Theory of Logic* in the last number of *MIND*, Mr. Venn alludes only briefly to the general view of the science taken by the author; and I should be glad to be allowed to offer a few remarks on this, especially in relation to what is said of the nature of Formal Logic.

Following Mr. Herbert Spencer, Mr. Read attempts to expound even Formal Logic as a purely objective Science. He accepts Mr. Spencer's definition of Logic as "a science that formulates the most general laws of correlation among existences considered as objective," with the proviso, however, that by "objective" we mean the phenomenal as opposed to the noumenal, and that we do not exclude the subject when it is itself regarded as a matter of fact. Of course the first question that arises, if this definition is to be accepted, is what we are to do with the contents of the old Scholastic Logic. Mr. Read divides it into four distinct portions, as including "the science of the use of language in Reasoning; the theory of Reasoning itself; occasional discussions in Metaphysics; and, expressly or by implication, some of the most general laws of the correlation of phenomena." Of these, the last alone is really logical; the Metaphysics must be relegated to Metaphysics; the theory of Reasoning to Psychology. The science of the use of language in Reasoning is more difficult to get rid of; it may, however, be handed over to Rhetoric, for "it is anomalous that there should be one science which treats of the use of language in discourse generally; whilst the use of language in a particular kind of discourse, and that the most important, is dealt with in another science". But this overlooks the fact that language fulfils more than one function, and that the office of language as an instrument of thought may be kept to some extent distinct from its office as an instrument of discourse. Mill has remarked that if there were but one rational being in the universe, that being might be a perfect logician; since, however, language of some kind is indispensable for thought if thought is to reach any degree of complexity, this solitary being would have to develop a language of some kind, and he might also develop a science of the use of language as the instrument of thought; but as he could not investigate the influence of language in discourse, in persuading and convincing men, he could not develop any art of Rhetoric. I can perceive no anomaly in having one science to treat of language purely in its relation to thought, and another to treat of it as a medium of intercourse between man and man. We may observe that though it may in general suit the purposes of Rhetoric to employ language logically, still this is by no means always the case, and that whilst the majority of men continue ready to be influenced by fallacious reasonings, Rhetoric will necessarily contain much that is essentially illogical.

The full extent of Mr. Read's innovation is seen when we find that "Logic has little or nothing to do with Fallacies," which are relegated partly to the Science of Education, though Rhetoric again comes in for

the lion's share. One might have thought that even from the matter-of-fact point of view Inductive Fallacies would have found a place in Logic; all fallacies, however, involve the subjective conditions which Mr. Read is so anxious to exclude. We may remark incidentally that all true knowledge involves subjective conditions also.

Let us turn, however, to that portion of the Scholastic Logic which Mr. Read is willing still to retain. In his last four chapters he treats of Immediate Inferences and the Syllogism, though under new and, at first sight, rather appalling names. Except that this novelty of expression is carried rather too far, giving an appearance of originality to the whole which is to some extent false, the treatment is in many respects admirable; but my purpose at present is to show that we are not really dealing here with laws of correlation among objects. Taking the propositions "All mammals are vertebrates," and "No invertebrates are mammals," from either one of which we can pass to the other by a process of immediate inference, it seems to me that as statements of objective fact we must regard them as precisely equivalent. No one can state this more strongly than Mill, who is himself a material logician; "the fact asserted in the conclusion" of an immediate inference, he maintains to be, "either the very same fact, or part of the fact, asserted in the original proposition". According to Mr. Read, however, the Principles of Consistency "represent certain aspects of the constancy of nature which are laws of Logic; were nature inconsistent (so to speak) we should be under no obligation not to be so; since inconsistent statements might then both be true." Now is Mr. Read here referring to noumena or to phenomena? We can perhaps understand what is meant by the supposition that the Principles of Consistency (that is, what we commonly call the Laws of Thought) might or might not apply to noumena (i.e., on the hypothesis of the actual existence of noumena); but then Mr. Read has expressly excluded all consideration of noumena from his treatment of Logic. On the other hand we cannot talk of phenomena disobeying the Laws of Consistency, because they are laws under which the subject is compelled to know things, and on subjective grounds necessarily apply to phenomena. Leaving this difficulty on one side, however, we observe that, if nature were inconsistent in the sense supposed, knowledge would be impossible. We cannot think two contradictories true at the same time; and, if this were objectively possible, there could no longer be any correspondence between the external order of things and the internal order of thoughts. It may be replied that if it were objectively possible, it *would* also be subjectively possible. We are, however, dealing with the human mind as to-day constituted; and to-day the justification of the logical Laws of Consistency must be found, not in the consistency of nature, but in the impossibility of our mentally transgressing them. In short, we must come back to this, that to talk of the inconsistency of nature in the above sense is unmeaning. By the inconsistency of nature we can only properly mean the absence of uniformity in nature, and so far as this is the case an Inductive Logic is of course impossible. But what-

ever may have been the course of development of the human mind, the Principles of Consistency with which Formal Logic deals must now be regarded as conditions of knowledge depending, not on the objects themselves which are known, but on the minds knowing them; and they seem to be of special importance in relation to the expression of the knowledge in language. It is only when we recognise that the same objective correlation may be regarded from more than one subjective point of view, and may be expressed in different forms of language, and when we recognise the importance of making explicit what has been merely implicit, that these principles become of importance. To me it is utterly unmeaning to talk of the Axiom of the Syllogism as a law of correlation of objects—an objective law; regarded in this light, the Syllogism itself is an unblushing *petitio principii* in the most contemptible sense. Nothing can be more confusing than to speak, as Mr. Read does, of the Axiom of the Syllogism and the Law of Causation together as highest laws both resting upon constant and uncontradicted experience.

This leads me to one further criticism is conclusion. Regarding Logic as “a universal science formulating the most general laws of the correlation of phenomena,” we should certainly expect it to include some treatment of axioms, since whatever explanation may be given of their ultimate character, they are indubitably our most general laws. But Mr. Read excludes them entirely. Axioms are laws which are incapable of exact proof, and Logic does not deal with them, nor with any laws which are not capable of exact proof; it only treats of what follows from or is contained in axioms. All considerations of Probability and of Belief appear to be excluded, and Logic seems to become an exclusively deductive science. But I have not space to work out in detail all the difficulties in which Mr. Read involves himself. His attempt to remodel Logic on the basis indicated by Mr. Herbert Spencer was tempting, and he has probably done his work as well as it could be done; yet I cannot regard it as a marked success.

J. N. KEYNES.

---

#### THEORETICAL AND PRACTICAL LOGIC.

Mr. Carveth Read's proposal (*Essay on the Theory of Logic*: Introd. sect. 5) to cede to Rhetoric the science of the use of Language in reasoning, is not dealt with by Mr. Venn in his criticism in the last number of *MIND*.

The grounds on which Mr. Read would make the cession, may be given in his own words—“For surely, it is anomalous that there should be one science which treats of the use of language in discourse generally; whilst the use of language in a particular kind of discourse, and that the most important, is dealt with in another science. If Logic deals with the use of language in reasoning, of what does Rhe-