Logic and the Basis of Ethics. By ABTHUE N. PRIOR. Oxford: Clarendon Press. Pp. xi + 111.

This book is concerned primarily with the so-called 'naturalistic fallacy' in ethics, with the history of its occurrence and the refutations of it in the works of English moralists before the publication of Principia Ethica, and with the logical questions involved. But it contains much other matter, connected with this main topic, but of considerable independent interest. The first and last chapters are explicitly devoted to the refutation of this fallacy, the former to the logic and the latter to the history of such refutations. Chapters II, III, and IV deal with the autonomy of ethics, with special reference respectively to Cudworth, to Clarke and Reid, and to Sidgwick and his contemporaries. Chapter V, entitled Promising as Special Creation, is concerned with a theory as to the nature of promises which was held by Reid and has been revived by Mr. Carritt. The remaining three chapters are devoted to theories which identify or assimilate moral fittingness and unfittingness with truth or falsity. Chapter VI deals with the early history of this doctrine with special reference to Wollaston and Adam Smith; Chapter VII with a form of it which Mr. Prior ascribes to Dr. Popper; and Chapter VIII with one which he ascribes to Professor Findlay.

As regards the logic of the 'naturalistic fallacy' and of attempted refutations of it, Mr. Prior's main contentions may be summarised as follows. Unless one has some positive definition of 'natural' and 'nonnatural' as applied to characteristics, the statement that goodness, e.g., is a non-natural characteristic amounts to no more than the platitude that it cannot be identified with any non-moral property. Suppose that a person wishes to identify goodness with, e.g., pleasantness or conduciveness to social stability. Then, provided he admits that pleasantness or conduciveness to social stability are moral characteristics, he can snap his fingers at the principle that goodness is a non-natural characteristic. Now Professor Moore has admittedly failed to provide any satisfactory positive account of what he means by 'natura!' and 'non-natural' as applied to characteristics. Suppose, next, that with regard to every suggested definition of 'goodness' it had to be admitted that it is intelligible to suggest that a thing might be an instance of the defining properties and yet not be good. We should still not be forced to conclude that 'good' is the name of a simple quality. For another possibility would be that there is no single quality or conjunction of qualities of which 'good' is the name, but that it covers a large number of alternants, and that whenever we try to identify it with any one of these the thought of some of the others arises and prevents us from doing so. clusion is that Professor Moore's arguments are useful only for dealing with inconsistent naturalists, who want to make the best of both worlds: but, as these are very numerous and highly respected, and as this form of inconsistency is always ready to spring up again like a weed, the arguments

should always be at hand as weed killer.

In tracing the history of the refutation of inconsistent naturalism Mr. Prior shows that Moore's ablest and most cogent precursors were Price and Whateley (in criticising Paley) and Sidgwick (in criticising Bentham, Spencer, and Green). Sidgwick makes the whole point with complete clarity in his Ethics of Green, Spencer, and Martineau.

The main points to be noted in the three chapters on the autonomy of ethics are the following. (1) Mr. Prior thinks that the contention that

no ethical conclusion can be inferred from premises which are all nonethical is more general than Moore's argument from 'trivialization', i.e. the argument that if 'good' means X then 'All good things and only such are instances of X ' is a platitude. (2) The best and clearest statements of the autonomy-principle come from the naturalists Hutcheson and Hume. (3) We may summarise the views of the main seventeenth century protagonists in the following nest way. Take the syllogism: 'All things discoverable by reason are capable of proof; all ethical precepts are discoverable by reason; therefore all ethical precepts are capable of proof." Cudworth and Clarke accepted both premises and therefore accepted the conclusion. Hume, Hutcheson, and Reid all denied the conclusion. The two former accepted the major premiss, combined it with the denial of the conclusion, and thus inferred the contradictory of the minor, i.e. 'Some (and indeed all) ethical precepts are not discoverable by reason'. third of them, Reid, accepted the minor premiss, combined it with the denial of the conclusion, and thus inferred the contradictory of the major i.e. 'some things discoverable by reason are not capable of proof'. For the essence of Reid's answer to Hume in ethics is that the first principles of morals are not deductions from anything, but are self-evident; and that other moral truths are deducible from them and not from non-moral relationships. (4) What Mr. Prior says of Sidgwick in this connexion in Chapter IV is mainly concerned with his criticism of Kant's doctrine of the various kinds of imperative and with Sidgwick's own doctrine on this topic. Mr. Prior argues that every general imperative must logically be a conditional proposition, whose antecedent refers to circumstances even if not to consequences. The only imperatives which could logically be categorical propositions are singular ones, such as 'You ought to do so-and-so here and now'. The important distinction, as Sidgwick saw, is not between the imperatives which Kant called 'hypothetical which he called 'categorical', but between both of these and mere causal statements such as: Unless you do x you will not secure y.

In Chapter V, on Promising as Special Creation, Mr Prior states and accepts Hume's view of the nature of a promise, and points out that this can consistently be held by a person who rejects Hume's utilitarian theory of the reasons for the obligation to keep one's promises. He summarises the former view as follows. A promise to do X is a statement of an intention to do X and of nothing further; but it is a statement made in a special way, which might be expressed by some non-indicative phrase, such as 'Let me never be trusted again if I do not do X' and it is this

that gives rise to the specially urgent obligation.

Now Mr. Prior ascribes to Mr. Carritt the view that to promise to do X is to make the statement 'I hereby put myself under an obligation to do X'; that this is, from a logical point of view, in a similar position to the statement 'I am making a statement'; and that both of them are in the peculiar position that they cannot be false. Mr. Prior answers that the two are indeed alike from the logical point of view, but the likeness consists in the fact that both sentences sin against the theory of types and are therefore meaningless noises. In the case of the sentence which is alleged to be equivalent to promising to do X the type-fallacy becomes obvious in the endless regress which emerges if you try to state what is meant by 'hereby' in it.

It remains to consider the three chapters in which Mr. Prior deals with certain attempts to identify or assimilate ethical fittingness with truth and ethical unfittingness with falsehood.

In the first of these chapters Mr. Prior summarises the extreme form of this theory, put forward by Wollaston, and Hume's refutation of it. He then states Adam Smith's attempt to account for the notions (i) of fittingness and unfittingness, and (ii) of merit and demerit, in terms of the emotional and volitional reactions of a person who imagines himself to be in a similar situation to that of the agent when he acted or imagines himself to be in the position of the person affected by the act. This theory, of course, is not an attempt to assimilate fittingness or unfittingness with truth or falsehood. But Adam Smith does make an attempt to assimilate truth and falsehood to fittingness and unfittingness as analysed by him. He alleges that to accept as true the opinions of another man just consists in finding that one has precisely similar opinions in preserce of the same facts and arguments, and is therefore precisely like approving another person's emotion or action in a given situation. Mr. Prior points out that this is a mistake. It is plainly significant for me to say that both my opinion and the opinions of those who completely agree with me may be false. But, on Adam Smith's analysis of 'fittingness', it would not be significant for me to say that B's emotions or actions may have been unfitting to the circumstances in which they occurred, if I find, on imaginatively putting myself into that situation, that I should have felt or acted as B did.

The second of these chapters contains an elaborate account, discussion, and final rejection of a theory ascribed to Dr. Popper. The theory, as stated by Mr. Prior, appears to be (i) that imperative sentences state something and do not merely express volitions or other attitudes; (ii) that what they state is not (as with indicative sentences) propositions, but something else which may be called 'norms'; and (iii) that norms have a property, analogous to but different from truth and falsity, which may be called 'validity or invalidity'. In the course of his discussion of this theory Mr. Prior states and examines the very ingenious analysis which Adam Smith gave, in terms of his general principles, of what may be described as 'morally approving or disapproving of another person's moral approval or disapproval'. He thinks that Dr. Popper ought, in order to be consistent, to analyse the 'validity' of a 'norm' on the same lines.

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According to Mr. Prior, Professor Findlay asserted in an article (Morality by Convention in MIND for 1944) that moral sentences in the indicative merely express certain emotions in the speaker and do not state propositions; but he combined this with the view that such sentences can be true or false, and he stated certain tests which are applicable for deciding on their truth or falsity. One point is that certain emotions, e.g. fear, imply certain 'claims' about their objects, e.g. that the object is dangerous; and that such an emotion is counted as 'reasonable' if and only if the implied claim is true. Another point is that it is an essential part of a specifically moral response (a) that it is impartial, and (b) that the person who makes it believes (i) that no further consideration of the case would alter it, and (ii) that a similar response would be made in a similar situation by anyone who duly reflected, considered consequences, and so on. A third point is that existing uniformities in moral response have come about because each man wants his moral responses to be consistent with each other and with those of other men in similar situations, and because men deliberately adjust themselves in order to ensure such assimilation.

Mr. Prior accepts all the alleged facts, and points out that each of them has been noted and treated in some detail by either Hume or Adam Smith or both. As regards the notion of a 'claim' made by an emotion about the nature of its object, he remarks (quoting Sidgwick) that in the case of an emotion of moral approval the claim would seem to be that the object is morally good or morally right. It would then seem to be circular to try to regard the sentence 'X is morally good (or right)' as merely an expression of an emotion of moral approval in the speaker towards X. Lastly, Mr. Prior accuses Professor Findlay of holding, or writing as if he held, that a moral utterance in the indicative which passed all his tests would be true in the literal sense in which a sentence which expresses a judgment and states a proposition can be true. He rightly remarks that this view cannot consistently be combined with the doctrine that a moral utterance in the indicative expresses only an emotion and states no proposition.

Mr. Prior's book seems to me to be excellent. It combines logical insight and analysis with most interesting historical matter. I hope that it will be widely read, and that it will lead many readers to make or to renew acquaintance with the outstanding ethical work of the eighteenth century English moralists, in particular with that of Adam Smith which has fallen into quite undeserved neglect.

C. D. BROAD.

The Foundations of Arithmetic. A logico-mathematical enquiry into the concept of number. By Dr. G. Frege. English Translation by J. L. Austin, M.A. Oxford: Basil Blackwell, 1950. Pp. (xii + xi + 119) bis. Price 16s. net.

This book contains on opposite pages an exact reprint of Frege's Grundlagen der Arithmetik and an English translation by Mr. J. L. Austin. For ease of reference the German text has been printed with the same paginaton as the original edition of 1884, and the English pages are therefore distinguished by corresponding numerals with the suffix "e". Some of Frege's references and quotations, which are not always accurate, have been corrected in the translated version, and a few additional references and notes on points of translation have been added in square brackets at the foot of the English text. Like the recent reprint of Boole's Mathematical Analysis of Logic, this edition was originally planned to meet the needs of Oxford undergraduates who are studying the Origins of Modern Epistemology, but it will be welcomed by all who are interested in mathematical logic and the foundations of mathematics. Mr. Austin has done his work extremely well. Wherever it is essential to reproduce the exact turn of a phrase, he has translated literally; but he has succeeded also in the much more difficult task of making Frege talk English that is at once fluent and suited to his character.

Mr. P. T. Geach has contributed the following corrigenda, and his

suggestions have been accepted by Mr. Austin:

P. 40° l. 9, after "... property." insert sentence omitted from translation "It would be incomprehensible why we still ascribe the property expressly to a thing at all."

P. 46 l. l, for "but that . . . concept." read "but for that very reason

is only one."

P. 56 1. 25, for "general" read "indefinite."

P. 60° ad fin., for "and a poorer . . . that." read "and a bad and self-contradictory one at that."

P. 103º I. 29, "one-one" (= beiderseits eindeutig) is too strict for