This may not have been Plato's own view. Prof. Taylor brings forward some considerations which suggest that the careful and systematic investigation into facts was encouraged in the Academy, though I do not think they are very decisive. But so far as the Timous goes, I cannot find any real evidence at all to support Prof. Taylor's explanation of these passages. Nor can I see any grounds for the contrast between Plato and Aristotle on this point. Plato's services in setting scientific thought on the right lines are great enough as it is without making claims for him that can hardly be substantiated. It was by his insistence on the importance of mathematics as the ideal of explanation that, if I have judged the facts rightly, he really influenced the development of modern science. But that is another story.

I have, of course, only touched on a few of the points that are dealt with in the commentary, and have naturally dealt at most length with those points which seemed to me particularly to challenge discussion. If all the points of interest in the book were discussed or even mentioned it would extend far beyond the permissible limits of a review. It is to be hoped, however, that enough has been said to indicate what an extraordinary mine of information the book is not only on Plato but on the whole history of Greek philosophical and scientific thought. As such it ought to appeal to a much wider circle of readers than might be expected to be interested in a commentary on one particular Platonic dialogue.

G. C. FIRLD.

Philosophical Theology, Vol. I.: The Soul and its Faculties. By F. R. TENNANT, D.D., B.Sc. Cambridge University Press, 1928. Pp. xvi. + 422. 21s.

This book, which is to be followed by a second volume in the near future, constitutes the psychological, logical, and metaphysical basis on which Dr. Tennant proposes to build a system of philosophical It does not directly discuss theology at all, and it could be read with interest and profit by philosophers, if such there be, who have never acknowledged or have long since renounced their allegiance to the Queen of the Sciences. As for professional theologians and intelligent candidates for Holy Orders they could not be better employed than in studying Dr. Tennant's work. Even where they disagreed with him they could not fail to be impressed with his scrupulous fairness and moderation, nor to learn most valuable lessons in controversial manners. The present deplorably low intellectual level of doctrinal teaching in both the Anglican and the Nonconformist churches in England is no doubt largely due to the very poor materials with which the theological colleges have to deal; but, if Dr. Tennant's work could be generally adopted as a text-book, much better bricks might be made even with this sadly unpromising straw.

The book may be divided roughly into the following parts. (1) An introductory chapter in which the author states and defends his views as to the data and methods of philosophy and its connexion with psychology. He reaches the conclusion that analytic and genetic psychology is, for the purpose of philosophy, the fundamental science. (2) A general psychological analysis by which the author attempts to distinguish the fundamental factors in the human mind, to indicate their mutual relations, and to state the psychological presuppositions of the observable facts of consciousness. Here he confines himself, so far as may be, to the mental life of an individual conceived to develop in the absence of intercourse with other minds. This part culminates in the conclusion that the observable facts require for their explanation the existence in each individual of an active, substantial, persistent Pure Ego. (3) The abstraction involved in the supposed isolation of the individual from other minds is now removed, and we have a group of two chapters, VI. and VII., which deal with the Empirical Self, Personality, and Valuation. Here we are given Dr. Tennant's views on the nature of Value in general and ethical Value in particular. (4) The next three chapters are concerned with the higher cognitive activities, which presupposes intercourse with other minds, and carry the individual beyond the merely perceptual level. In this connexion the author discusses the categories of thought, and the rival theories of Rationalism and Empiricism, Realism, Idealism, and Phenomenalism. It seems to me curious to count the last three as "theories of knowledge" in the sense in which the first two certainly are, but Dr. Tennant does so. (5) The last three chapters discuss the logical grounds of Induction, and from this pass on to estimate the kind and degree of weight which is to be attached to the claims (a) of Religious Experience, and (b) of Scientific Knowledge, by philosophy. The book ends with a series of Appendices in which certain problems which have been raised in the main body of the work are discussed in more detail. I will make some comments on each of the five sections which I have distinguished above.

(1) Philosophy cannot start with what is logically fundamental or psychologically primitive. It must take as its datum the actual beliefs and experiences of the individual as a fact to be analysed, accounted for, and appraised. Analysis may show that much which seems simple and primitive is complex and derivative, and it may show that much which seems certain is false or doubtful. Psychological analysis, including a psychological account of the genesis of present experiences, will thus play a fundamental part in philosophy. Dr. Tennant regards his method and his starting-point as fundamentally opposed to those of the Rationalists and the Epistemologists. But it seems to me that he exaggerates the opposition. If a Rationalist be defined as a person who holds (a) that the whole of philosophy consists of necessary consequences of a priori premises, and (b) that the a priori premises can be dis-

covered without concrete instances being presented in sense-awareness, Dr. Tennant has no doubt refuted him. But even so extreme a rationalist as McTaggart held neither of these views. And it remains possible that an essential part of philosophy is a priori premises, discovered by intuitive induction and necessary consequences of these. These would give the structure of any possible world, and the skeleton would have to be clothed with flesh taken from the data of actual experience. I cannot see that Dr. Tennant has refuted this form of Rationalism. Again, his objection to the Epistemologists is that they start with the assumption that so-and-so, which claims to be knowledge, really is so, whilst psychological analysis might have shown that it probably is not. This is a perfectly valid criticism on the actual procedure of many, if not of all, epistemologists. But Dr. Tennant himself starts, and must start, with the assumption that we know that we have certain experiences and beliefs. Thus he is "a brother epistemologist with a rival theory of what is known".

(2) The psychological analysis is, as Dr. Tennant insists, largely a synopsis of Ward's work, of which the author is a great admirer. There is, however, one important difference. Dr. Tennant rejects Ward's view that attending, feeling, and desiring are known only inferentially and not by acquaintance. But he agrees with Ward that, although we can be certain that there is a persistent substantial Pure Ego involved in each Empirical Self, we never know it by acquaintance. It will be of interest to enumerate the properties which Dr. Tennant thinks that the Pure Ego can be known to have. (i) "It has no parts." This seems to me unproven. At most Dr. Tennant has shown that it has no parts which are themselves Pure Egos. (ii) No state of mind can be owned by two different Pure Egos. Dr. Tennant seems on page 96 to confuse this with the wholly different proposition that "with every subject is correlated a not-self numerically different from that correlated with Though this proposition is probably true, it certainly neither is identical with nor follows from the original statement. (iii) No two Pure Egos are exactly alike in all their qualities and dispositional characteristics. I am not clear whether Dr. Tennant considers this to be a necessary proposition. If so, I am inclined to disagree with him. (iv) The Pure Ego has active as well as merely passive or receptive powers. I think that this means that, when states have been produced in the Ego by interaction with other things, these states may develop and be modified in accordance with purely immanent laws without further stimulation from out-(v) The Pure Ego is not an existent without essence or an essence without existence. (vi) It cannot be phenomenal. This means that it cannot be an appearance of something which is not an Ego to something else which is not an Ego. For anything that appears must appear to an Ego. It does not mean, I think, that from the nature of the case, a Pure Ego could not appear either to itself or to another Pure Ego.

The question of course arises whether Dr. Tennant has shown that the admitted and observable facts of human mental life are explicable only on the assumption that a Pure Ego, in the above sense, exists in connexion with each Empirical Self. The question cannot be adequately discussed in a review, and I must confine myself to two remarks. (i) I am inclined to think that such arguments as Dr. Tennant uses make it unlikely that the facts can be explained by assuming that an Empirical Self is a set of mental events interconnected by any relation or set of relations which occur elsewhere in the world. But this leaves it possible that an Empirical Self is a set of mental events interconnected by a unique relation instead of a set of events owned by a unique particular (ii) I think that there is a definite fallacy in an argument which is used by Dr. Tennant and many others against the theory of a series of short-lived subjects instead of a single persistent The argument may be put as follows. I can compare a colour which I am now seeing with another which I once saw and am no longer seeing. But I could not compare a colour which I am now seeing with another which some one else is seeing but which I have never seen. Now, on the serial theory, s_n , who is now seeing a certain colour and comparing it with another, is a different subject from so, who saw the other colour with which the comparison is being made. Hence comparison should be impossible. argument is unfair to the theory in question. The theory is that what would usually be called two different persistent subjects 8 and S' are really two different series of successive short-lived subjects of the following kind:-

$$S = \phi(s_1, s_2, ...)$$
 and $S' = \phi(s_1, s_2, ...)$

Now what is certain is that no member of S can compare what it perceives with something which has been perceived only by a member of S'. But it does not in the least follow that no member of S could compare what it perceives with something which has been perceived only by another member of S. For, by hypothesis, any two members of S stand to each other in a relation in which no member of S stands to any member of S'.

(3) The essential points in Dr. Tennant's theory of Valuation and Ethical Value are the following: (i) In judgments of value feelings are constitutive and not merely epistemologically instrumental. In the judgment that x is good or that it is right the feeling of approval or of obligation is not like a sensation which reveals a characteristic in the object which would be there even if no one had such sensations. The judgment is a statement about feelings towards objects, and, if there were no such feelings, there would be nothing for such judgments to correspond to. (ii) This does not make value merely personal or private. Developed judgments of value are not of the form: "I have such and such feelings in presence of such and such objects." They are of the form: "All

men, or all Etonians, or most Greeks, have such and such feelings in presence of such and such objects". And this is of course a matter about which there can be argument. (iii) The notion of "absolute value" or "absolute obligation" is absolute nonsense. It arises through confusing value which is independent of this or that valuer with value which is independent of all valuers. (iv) What is called an advance in moral standards is, in the main, an advance in intellectual discrimination of the objects valued. Even if there were such characteristics as absolute value and absolute obligation a unitary system of ethics would be impossible. There is an ideal of self-culture and an ideal of social duty. a large extent they are compatible with and even essential to each other. But either, when pushed beyond a certain point, condicts with the other, and there is no supreme principle which decides in

such cases how far one is to be sacrificed to the other.

(4) This section of the book is not easy to summarise, but I hope that the following is a fair account of the gist of it. (i) There are two different kinds of categories, the "formal" and the "real". The fundamental notions of logic and pure mathematics belong to the former class, while cause, substance, etc., belong to the latter. (ii) It is impossible to understand the actually existent without using the real categories in addition to the formal ones. (iii) The real categories are "read into" the external world on the occasion of certain specific kinds of experience and by analogy with certain specific features in the human experient. Thus they are neither of purely subjective nor of purely objective origin. It is certain that the external world will bear this interpretation up to a point, but it is not certain how far it will do so. And, in any case, where it ceased to be capable of such interpretation it would cease to be intelligible to us. (iv) We must distinguish between the immediate objects of sense-awareness, physical objects, and things-in-them-The first are private to the percipient; the second are not selves. actual existents but are conceptual constructs founded on the former when a number of percipients begin to compare notes and to co-operate with each other in practice; the third are existents and are public. The only thing-in-itself which anyone can know directly is his own Ego; all other things-in-themselves are known about only through the immediate objects of sense, their qualities, and their correlations. Ontologically the immediate objects of sense depend jointly on the percipient and the thing-in-itself, and it is impossible to point to any feature in them which is wholly due to the latter without admixture of the former. This doctrine Dr. Tennant calls "Phenomenalism".

It is not of course strictly correct to say that, on Dr. Tennant's view, each of us is acquainted with his own Ego. He is acquainted with certain events which, if Dr. Tennant be right, he can see on reflexion to belong of necessity to one and the same persistent active substance. The contrast with his knowledge of other thingsin-themselves is that the immediate objects of sense are seen on

reflection to be, not states of external things-in-themselves, but joint products of the latter and the Ego who senses them.

As regards the distinction between "formal" and "real" categories, I do not find this very clear. It seems from the examples that formal categories are those which apply both to particulars and to terms which are not particulars, whilst real categories apply to particulars only. Thus number and identity are quoted as examples of formal categories, whilst cause and substance are quoted as examples of real categories. This distinction would, I suppose, be admitted by most people. But Dr. Tennant is concerned to maintain that categories which apply only to the existent do not of necessity apply throughout the existent. Thus, e.g., it is not self-evident that things-in-themselves which are not Egos are either substances or causes. We postulate that they are, and they have so far answered to the demand, but there is no kind of necessity that they should or of guarantee that they always will.

(5) Dr. Tennant accepts the view that induction can at best only render its conclusions probable, and that these conclusions can be rendered highly probable only on certain assumptions about nature which are neither self-evident nor capable of inductive proof. And he suggests that, if we say that the assumptions are themselves probable, we must be using "probable" in some different sense from that which it bears in the rest of the discussion. The subject is a very difficult one, and I am inclined to think that Dr. Tennant may be right here. Thus natural science in the end rests on something that may fairly be called "faith in the reasonableness of the universe," and, if theology needs to rest on faith in no other sense

than this, science is not in a position to throw stones at it.

Dr. Tennant's discussion of the claims of specifically religious and mystical experiences to furnish a basis for theology leads to a wholly negative conclusion. He does not positively deny that in such experiences the saint or the mystic may be in some kind of supersensuous cognitive contact with God. But he holds that there are no facts which force us to this conclusion, and many which suggest a much humbler origin for such experiences. And he considers that the statements which have been made about theological and metaphysical subjects by mystics on the basis of their experiences, when intelligible at all, tell us nothing that we could not have learned from other sources. As regards some typical mystical utterances of Jakob Boehme, which he quotes, Dr. Tennant makes a comment which may be put beside a famous saying of Dr. Johnson's on the same subject: "The critic does well to call nonsense by its name". If the existence of God can be rendered probable on other grounds, the ethical and religious experiences of mankind may be used to supplement our information about his character and to add to the probability of his existence; but, in themselves, on Dr. Tennant's view, they are quite inadequate to support a theistic view of the universe.

It will be seen that Dr. Tennant has felt himself obliged to reject

most of the stones which other theistic builders have made the head of the corner. The ontological and the cosmological arguments, which have been permanent invalids since the time of Kant are given their quietus; whilst the arguments from ethical and religious experience, which the ste have relied upon since then, are pronounced inadequate. Dr. Tennant has thus left himself with a difficult task for the second volume. Evidently he will be confined to a generalised form of the Design Argument. He will presumably argue that, if we look at the facts as a whole, a theistic view of the universe is "reasonable" in the same sense in which the postulates of scientific induction, such as the Principle of Limited Variety, are reasonable when we confine our attention to the facts with which natural I agree with Dr. Tennant that there is no other line science deals. of defence for theism or for any other form of speculative meta-Whether he will be able to show that theism is highly "reasonable" in this sense, or even that it is conspicuously more "reasonable" than most of its rivals, remains to be seen.

Dr. Tennant already enjoys the distinction of being the most eminent authority in the Church of England on Sin. But, in the lives of all of us, there comes a time when we are forced to admit that "Sin is not enough". It is all to the good that Dr. Tennant should have put his peches de jeunesse behind him, and should now be dealing with the fundamental problems of philosophy. Philosophers will congratulate him on his first volume, and wish him good speed, with his second.

C. D. Broad.

Common Principles of Psychology and Physiology. By John T. MacCurdy. Cambridge University Press, 1928. Pp. xvii + 284. 15s.

A PIECE of behaviour is more than the sum of the individual muscular and nervous happenings which make it up. It involves both meanings of the word 'end;' it tends towards instating some state of equilibrium; its parts are subordinate to the whole; there is a succession of happenings but some inner principle of unity seems to hold them together and separate them off from ther possible happenings so that they form a pattern in a background and the notions of relevance and irrelevance can be used in describing the total situation. And not only that, the patterns themselves can be compared from a formal point of view. You can say that the pattern of behaviour at one moment is the same as a pattern at another though the constituents have changed-a person can sing a song in different keys or draw triangles of different sizes but of the same shape. And, still more extraordinary, when some of the nerves required for the performance of a piece of behaviour have been injured, the behaviour can nevertheless take place in a large number of instances because other nerves will