

the same way. Some of us claim to be civilized and yet find high pleasure and recreation in hunting, killing, maiming and torturing defenseless animals, although we go on criticizing the Spaniards who enjoy the gore of a bull-fight. And even those of us who admit the savage cruelty of hunting and kindred sports do not hesitate to elevate, propagate and degenerate certain species of domestic animals with the express purpose of killing them for food. We do not see anything inconsistent in the fact that, scientific though we are, and while we talk snobbishly of our refined taste, we are much less particular than plant-eating animals, and we keep feeding on corpses of fellow creatures.

We call ourselves scientists because we believe in the laws of nature. In our studies and our research work we have never-ending opportunities for admiring the marvelous harmony of nature, the invariable laws of God. Yet when we hold our annual banquet of scientists we fail to see that we blaspheme the God of law and order and deny the immutability of his laws by asking him in prayer (and in this similar to savages) to disturb these eternal laws of nature so as to grant us some petty favors, forgetting that we are merely insignificant little dots in the immensity of the universe.

Let me conclude this essay by repeating the main points mentioned therein:

If specialization may be advantageous for increasing our productiveness in a given field of activity, over-specialization, on the other hand, may develop one-sidedness; it may stunt our growth as men and citizens; even for persons engaged in scientific pursuits it may render impossible the attainment of true and general philosophic conceptions.

If I have succeeded in convincing some of us that over-specialization does not bring forth the very best there is in us, if I have

contributed ever so little to keep us aloof from the life of dizzy automatic machines, if I have succeeded even in the smallest degree in stimulating you to nobler endeavors, then I shall indeed feel very amply rewarded by your kind attention.

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SCIENTIFIC BOOKS

The Syllogistic Philosophy or Prolegomena to Science. By FRANCIS ELLINGWOOD ABBOT, Ph.D. Boston: Little, Brown & Co. 1906. 2 vols. Pp. xiv + 317; vi + 376.

These volumes are the philosophical testament of their author (d. 1903), whose previous works—'Scientific Theism' (1883), 'The Way out of Agnosticism' (1890), and contributions to 'The Index' (1870–80), of which he was editor—constitute preliminary surveys. The work has been in preparation more or less since 1859 (*cf.* ii., 291), and was reduced to its present form in the decade 1893–1903. In his pathetic preface and valedictory words, Dr. Abbot states his purpose and expectations with no uncertain sound. He puts in a claim to have superseded all previous thinkers, to be enrolled with the greatest classics. In so doing, he remembered, doubtless, that he was also courting the stringent criticism which men accord to the classics only.

If at last it shall receive sober, just and intelligent appreciation, I believe it will be found to have done for philosophy what was done for botany in transition from the artificial Linnæan classification to the natural system of classification by total organic and genetic relationship—a revolution never to be reversed; and to give to ethical and free religion what it has never yet had, a basis in scientific reason (I., xi). My work of forty-four years is done, and I commit its destinies to the Master of Life, whom I have resolutely but reverently sought to know by using the free reason which is his supreme gift to man (II., 296).

In the circumstances, and face to face with Dr. Abbot's *ex cathedra* earnestness, criticism becomes an ungrateful task. One can only say, to begin with, that whether these tremendous expectations are to be justified time alone can tell. But after a careful and sympathetic perusal of the contents, I feel com-

pelled, meantime, to reply in a decided negative. I can not find that Lucretius's address to Epicurus applies:

O tenebris tantis tam clarum extollere lumen

Qui primus potuisti, illustrans commoda vitæ;
and nothing short of this would befit the plea set forth. Well equipped with wide and careful reading as Dr. Abbot evidently was, he seems to have fallen upon an arid formalism which forces him to serve up afresh, and with reiterated emphasis, many of the contingent features peculiar to idealistic absolutism in the nineteenth century. In short his scholasticism is such that he is unfitted by sheer mental constitution for the leadership of that new and transitive school for which he longed. Indeed, it is plain, and to be deplored possibly, that his 'Syllogistic Philosophy' must remain a sealed book to all except a few curious specialists. And, even for this select company, its interest, I apprehend, is already largely historical. For it furnishes what might be termed a species of epilogue to transcendentalism as understood in America. I should judge it typical of certain tendencies of New England unitarianism, rather than symptomatic of the fresh philosophical synthesis which, as many admit, may emerge during the present generation. True, propinquity may have made me myopic; but I can not see the conclusion otherwise. For, despite Dr. Abbot's blindness to his historical position and obligations—a blindness which, paradoxically, lends his work its chief interest—he is little more than another of the many derivants from Hegel, but, as so often, from Hegel with his concrete thinking omitted.

The crux of Dr. Abbot's position resides in his criticism of Hegel. Here he has failed to appreciate the Hegelian distinction between *Verstandes-Allgemeinheit* and *Allgemeinheit des Begriffes*. He would reduce Hegel to the level of a mere continuator of Aristotle, nay, of Aristotle taken at his worst. It is surely a piece of extraordinary perversity to find Hegel's characteristic doctrine of universals in the Nürnberg *Propädeutik* (cf. i., 265 f.), even if one may forgive the oversight whereby, at this late date, a writer omits to notice that

Aristotle's metaphysical teaching implies a principle by which the 'Paradox' of his logic can be overpassed. And it is still more astonishing to discover that the criticism of Hegel proceeds from a standpoint already made abundantly plain by Hegel himself. No doubt, the Hegelian exploitation of the evolution of the categories may be regarded now as insufficient, or even inapplicable, thanks to those very historical investigations which originated in the impetus exerted by the Hegelian system. But, then, Dr. Abbot offers no concrete *Darstellung* of his own categories. No doubt, evolution is a problem to-day as it could never be to Hegel. But, then, the mere statement that Darwin, by his discovery of 'advantageous variations,' set this new problem, by no means solves it *philosophically*. If the problem is to be attacked from the logical side, a reconsideration of the entire office and operation of disjunction becomes inevitable, and of this Dr. Abbot betrays no consciousness. From first to last he remains curiously impatient of doubt as a test of his own position—he is too sure of it for this, and so he fails to reap the results which follow only from the 'labor of the notion.' The one possible conclusion is that he was so much of an intellectual recluse, even an ascetic, as to injure his perspective.

What quarrel with Hegel has the man who can write as follows? And what obligation does he not owe him? "The only possible modes, functions, or faculties of knowledge are, from the sheer necessity of the case, in the uncreated 'nature of things,' those two forms of activity of the one knowing-faculty which, on the side of the unit, we call sensibility, or perception, or experience, and, on the side of the universal, understanding or conception or reason" (i., 207). Obviously, Dr. Abbot belongs with the monistic idealists; but is so obsessed of abiding a priest continually that he confesses to being without father, without mother, without descent. One does not accuse him of mere apprenticeship to the Berlin master. But, in spirit, general outlook, and necessary consequence, where do we find, if not in Hegel, the kinship of the following, which is Dr. Abbot's conclusion of

the whole matter? Not in the Nürnberg *Propädeutik*, truly, nor yet in *reines Denken* as a purely 'subjective' function; but Hegel had some other things to say! "It becomes very clear that one and the same method obtains" in each of the three spheres of being, knowing and doing, "the method of absolute syllogistic. Genera, species and specimens are the only realities in being; genera are realized only in the whole of their species, and species only in the whole of their specimens; the relation of genus, species, and specimen is necessarily that of the three terms in the syllogism. * * * Similarly, ideas, concepts and percepts are the only realities in knowing; ideas are realized only in concepts, and concepts only in percepts; the relation of idea, concept and percept is that of the three terms of the syllogism. * * * Lastly, ideals, purposes and deeds are the only realities in doing; ideals are realized only in purposes, and purposes only in deeds; the relation of ideal, purpose and deed is that of the three terms of the syllogism. * * * Through this principle of absolute syllogistic as the law of unit-universals, or apriori of being, or necessary identity of methods in the sphere of reality and ideality alike, philosophy attains its end in syllogistic as the principle of absolute methodology, and in personality as the top-most reach of its application in human knowledge" (ii., 285 f.). By how much does this differ from, say, the *Rechtsphilosophie*? And by how much the *Rechtsphilosophie* differs from this, because based on an analysis far more profound than that offered in 'Syllogistic'!

For the rest, suffice it to say that students of technical philosophy will find some suggestive criticisms in these pages; for, notwithstanding its author's avowed purpose, the work ranks much stronger in destructive than in constructive material, a circumstance in itself indicative of much. Second, a number of acute interpretations, particularly of Aristotle, Kant and Fichte, are presented, which will raise controversy, and possess the merit of sending the reader to the original sources. Third, Darwin is hailed, not simply as a great scientific man, but as the herald of a new

philosophy which, in all likelihood, he would have failed to comprehend. Lastly, much is offered which could be worked up into an epistemology or logic with advantage, were it first subjected to fundamental analyses. For example, we read:

Every logical conclusion from true premises, that is, every concentered syllogism of knowledge, every true judgment, or real cognition, is one of the ultimate cells which syllogistic, as the cell-theory of the organism of universal human knowledge, recognizes as the indivisible living components of all science and all philosophy. The object, we repeat, determines the subject in knowing. That is, what the object is in itself, even on the idealist's assumption that the subject has created it, must determine all possible knowledge of it; the relations immanent in it must determine all relations immanent in the cognition of it, since any variation in these at once vitiates the cognition so far (II., 247 f.).

Elements are presented here which idealism has not been too prone to emphasize; but they stand in sore need of the regress of criticism.

Dr. Abbot's intense seriousness and total lack of humor, added to his exasperating repetition of formulæ such as the mystic 'My self as one of the we,' and the 'I in the we,' render the work difficult reading; but as a mental gymnastic, the effort to discover the author's special originality and to justify his treatment of the classics of the past, may be recommended. An admirable index makes reference easy.

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American Fossil Cycads. G. R. WIELAND. The Carnegie Institution of Washington, 1906. Pp. viii + 296. Pl. I.-L.

The appearance of this handsome quarto volume marks a very important forward step in our knowledge of the Cycadales, while it also throws a great deal of light upon the general problem of the phylogeny of the gymnosperms and their supposed relation to filicinean ancestors. It is the result of studies carried out by Dr. Wieland since 1898, when the first field work was undertaken. In the present treatment the author devotes his attention to establishing the obvious boundaries and botanical aspects of the cycads, reserving their