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A SURVEY OF EXPERIENCE.

Elements of Constructive Philosophy. By Dr. J. S. Mackenzie. Pp. 487. (London: G. Allen and Unwin, Ltd.; New York: The Macmillan Co., n.d.) Price 12s. 6d. net.

THIS is a very pleasant and very instructive book. It is like a series of conversations with a thinker of great versatility and great learning, extending over the whole range of logical and metaphysical speculation. Dr. Mackenzie is definite without dogmatism, and earnest without fanaticism. And he is suggestive on all points that he touches.

The treatise falls into three parts. The first 'book' is devoted to logical discussions; the second to metaphysic—explaining the principal categories by which we conceive of nature and spirit; the third to what might be called ultimate cosmology, to such problems as the unity and perfection of the universe, the survival of the individual, and the relation of time and eternity.

In book i., beginning from belief, which the author treats as a mode of selection, and pointing out that the selection cannot be arbitrary, he passes through an account of judgment and of the laws of thought to a first analysis of the controlling factor, the experience of objective orders. Logic he takes to be the general theory of implication, and all implication—that is, the essence of all inference and judgment and belief—depends upon the recognition of objective orders. To these he devotes a chapter, referring to Driesch's "Ordnungslehre" as the most elaborate treatment of the subject, and pointing out that any principle which has some possibility of continuous application may be taken as a principle of order. There are orders of all kinds, from the numerical to the moral order or order of values, and, as M. Bergson has suggested, it is doubtful whether the conception of disorder can mean anything but the absence of some particular order which we chose to expect. In referring to theories of knowledge, the author well explains that the antithesis of pluralism and cosmism is much more significant than that of realism and idealism, which need not necessarily be an opposition at all.

In book ii. the treatment of causation is of interest. In general agreement with Mr. Russell, Dr. Mackenzie holds that it amounts pretty much to the unity of different things as connected by relations that have some regularity. Cause tends to pass into a principle, and effect into a detail. Whether on this ground the distinction between cause and effect can be maintained may seem doubtful.

An important chapter in this second book is that dealing with valuation. Attempting to arrive at a conception of intrinsic value, the author concludes that it must be identified with truth, beauty,

and goodness, and that all else can have value only as instrumental to these.

From this it is interesting to pass to the conception of ultimate reality in book iii., where the problem of reconciling time with the unity of the cosmos (the term universe is applied to units within the cosmos) is attempted on the lines of cycles or histories presenting themselves as dreams which have constancy within an eternal whole, as a play of Shakespeare exists in its own time within the imagination of the poet or reader. The point of the metaphor is that it admits time into the cosmos, but the time so admitted is not a time of the cosmos. And the eternal characters of the cosmos-truth, beauty, goodness-would thus appear in time, without being mere transient There is an interesting reference to Oriental sources for such views, and actually a diagram of the upward and downward path. Our fear about all such doctrines is that the paths and cycles may be imagined as divorced from each other and from the characters of the universe. They then become illusions, and the cosmos a "thing-in-itself." After all, it is in a woman's heart or a nation's spirit that we find what brings us nearest to cosmic reality.

It is part of Dr. Mackenzie's temperateness that he promises us from philosophy only hope, not conviction. There is truth in this position, so far as particular expectations are concerned. But yet it recalls to us a technical point about the "Laws of Thought." For him they are not based on the nature of reality: you cannot judge at the beginning whether reality will prove self-contradictory, but only at the end of your inquiry. This is more difficult than it seems. Unless you start from the coherence of reality, you can never get to it. You cannot separate thought from assertion about reality. If things may be both this way and that, and thought can be only one way, thought is obviously false, and you can make no step towards knowledge. "Make a hypothesis, and test it by facts." But if things being one way does not exclude their being the other way, there are no facts.

Attention should be directed to Dr. Mackenzie's observations on Mr. Russell and the new realists. His view of Prof. Nunn's theory of external objects seems reasonable. The double pitch of a tone, as heard by a stationary and a receding ear, certainly belongs to it. But neither pitch exists in the absence of the corresponding ear.

BERNARD BOSANQUET.

PRACTICAL ASPECTS OF PRUNING.

The Principles and Practice of Pruning. By M. G. Kains. Pp. xxv+420. (New York: Orange Jude Company, 1917.) Price 2 dollars net.

THE author of this work makes the following statement in his introduction: "Pruning demands a knowledge of plant physiology. Unless the pruner has a working knowledge of how