Ushenko, Andrew Paul, *The Problems of Logic.* Princeton University Press. Princeton 1941. (225 pp.; $2.75)

Frye, Albert Myrton, and **Albert William Levi,** *Rational Belief,* An Introduction to Logic. Harcourt, Brace & Co. New York 1941. (xiii and 482 pp.; $2.75)

Wood, Ledger, *The Analysis of Knowledge.* Allen & Unwin. London 1940. (263 pp.; 12 s. 6 d.)

Ushenko's book is a cautious protest against the abusive claims of the purely "postulationalist" logic which identifies logical problems with those of linguistics, semantics, and mathematics. He emphasizes that "logical form is not co-extensive with the syntax of language" and that propositions have a definite "objective reference" to something that is not a word but a "thing," to a fact "outside discourse." Logic, in other words, is concerned with truth, and truth implies something "beyond convention," some agreement with an objective, "external reality." These are insights which constitute a remarkable achievement in the present-day discussion of logical problems. To be sure, Ushenko's position is at once faced with the old "paradox" that "there exists within discourse an objective for reference, the nature of which is to be something outside discourse," that logic comprises elements which "belong at once to conception and to external reality." His solution, in his own words, is a "revival, with essential differences, of the transcendental logic." The essential difference consists in his distinction between categories which have an "objective reference" and categories which are simply means or functions of "organizing thought." To him, the logical validity of the means of organizing thought in a proposition (the categories) is not in any way identical (as it was to Kant) with objective validity. This distinction makes it possible for Ushenko to reconcile transcendental logic with the decisive theses of modern formal logic, especially with the assumption that not concepts (terms) or judgments but propositions are the real units of logic, that concepts attain their logical validity only through their function in propositions, and that logical deduction depends on "formal properties" and not on "connotation." Then, of course, any transcendental deduction of categories and judgments is impossible, and Ushenko seeks the basis for the validity of logical forms in the pronouncement of "intuition," which provides a "direct apprehension of an exhibition of form." Apart from this attempt to formulate the objective foundations of logic, the book contains a thorough and critical analysis of the paradoxes and the most modern efforts to solve them.

While Ushenko's book is fully aware of the philosophical problematic of logic and of the philosophical implications involved in the scientific and mathematical formalization of it, Frye's and Levi's *Rational Belief* exemplifies the leveling down of all logical problems to the uses of an innocuous textbook. Theirs is a treatise in traditional logic with almost complete disregard of recent reformulations of the field. The task that remains unfulfilled is to restate this logic in its full historical and philosophical significance, and no attempt to perform it is made in the book under review. Instead, logic is harnessed to the authority of common sense,—a common sense, of course, which has taken in the refining achievements of modern science and technics. The authors treat logic as the study of rational

belief, and formulate the "law of rational belief" as follows: "Accept without qualification only true propositions; qualify the acceptance of any proposition that is only probably true by the measure, or sufficiency, of the reason for it." True propositions are either formal or material; the former are either self-evident or inferred, the latter must ultimately be justified by experience. Experience must be submitted to scientific method, the primary element of which is observation. This is the framework in which the classifications, distinctions, and laws of traditional logic are repeated, exemplified by nice, often amusing, stories, newspaper clippings, and anecdotes. The level of the discussion might be illustrated by two instances: in the paragraph headed "The Limitations of Sense Experience" one looks in vain for a treatment of the various philosophical criticisms of sense-knowledge, but one finds the statement that "the observer should have his physical condition, particularly his sense organs, tested,—an astronomer with bad eyesight or a particularly slow perceptual response should be aware of such defects." And the Socratic Method is held to be "simply a technique for the clarification of meaning, in which one clear-minded individual sets out to infer accurately the meanings hidden behind the actual assertion of one less clear-minded than himself."

Ushenko uses the referential or intentional thesis for a reformulation of logical problems; Ledger Wood applies the same thesis to a far-reaching epistemological analysis. His book may be characterized as a phenomenological investigation into the structure of knowledge. He begins with sensory knowledge and perception, then takes up memory, introspection and the knowledge of other selves, and ends with conceptual, formal and valuational knowledge. His analysis is guided by the principle that intentionality, meaning referential transcendence "beyond the immediate data of experience," is the essential feature of all knowledge. This implies a critique of positivistic and fictionalistic epistemology that is particularly fruitful in Wood's discussion of sensory knowledge. He recognizes that the sense data, "far from being the first in the order of knowledge, are the end-products of refined and subtle psychological analyses and philosophical abstractions." Spontaneous intellectual processes operate in apparently the most immediate modes of knowledge and terminate in the perception of "things": the "thing" is the result of a whole chain of syntheses which integrate inner- and intra-sensory qualities. The syntheses themselves are largely governed by imaginatory and pragmatic factors. "Thinghood is no doubt a pragmatic category, but it is grounded in the structure of the phenomenally real."

One might expect that this view would open the way to an analysis of knowledge which follows out the "mediating processes" operative in perception and dissolves the positivistic abstractions into the unrestricted historical continuum of experience. This, however, is not the case. At best, Wood arrives at some *Gestalt* psychological corrections of positivistic epistemology. The trans-sensory factors which he recognizes as constitutive of experience do not go beyond certain elementary pragmatic or psychological processes (association of ideas, recognition) acknowledged even by the sensualists. He gives a quick critique of Kant's transcendental analytics, treats Hegel's dialectical logic with superior contempt, and eventually succumbs to the positivistic impoverishment of knowledge.

This becomes especially clear in Wood's discussion of conceptual and valuational knowledge. According to him, the universals to which concepts

refer are but "classes" of particulars, dependent upon the resemblance or similarity between the members of the class. True, "the object of the concept is not the bare particulars, but the particulars in their resemblance to one another." The concept is a "unique and unrepeatable mental event" which cannot be identically the same in two individuals. On the other hand, Wood admits that the concept is "not a bare psychological fact" but does possess constancy and identity of meaning in a multiplicity of individual intellectual acts. He explains this identity by the phenomenon of "multiple intent," by virtue of which numerically distinct concepts refer to one and the same intentional object. The phenomenon of multiple intent itself, however, although the "very heart and core of knowledge," is designated as a mere "fact," to be accepted as "an ultimate and inexplainable trait of consciousness." Concerning the formation of concepts, Wood gives a mere psychological interpretation: the conceptual synthesis is determined by the "law of recognition," and the behavior of the child who recognizes and names the toy which was taken away from him is held to exemplify the origin of conceptual thinking.

Wood's theory of conceptual knowledge denies the reality of universals in any form, a position which is greatly facilitated by the exclusion of all problems concerning the existence and structure of the external object of knowledge. Such "phenomenological reduction" seems today to play the same game as the fictionalism and nominalism which it was originally meant to overcome. Wood's theory of universal concepts lacks an adequate empirical foundation. He does not attempt to unfold the full structure of experience, an attempt which might have led him to see the missing experiential basis for universality as a historical phenomenon bound up with the situation of knowledge in a particular form of society. Hegel's *Phenomenology of Mind*, which links the development of conceptual universality to the historical development of human consciousness and practice, is much more empirical than Wood's epistemological analysis. The latter considers only the abstract epistemological subject in its contacts with other likewise abstract subjects; outside this sphere, the subject appears mainly as determined by custom, habit and the "moral sentiments of decent men." Wood's philosophy thus shows definite conformistic tendencies which bear their fruits in his discussion of valuational knowledge and culminates in the statement that moral ideals and principles "have no authority different from the rules of a game," say contract bridge, or, still better, from the postulates of a mathematical science. They are not true "in the strict sense"; "they are only posited in order that their logical implications may be elicited." These analogies are not meant to illuminate an actual state of affairs (in which case they may be very adequate descriptions) but the very structure of valuational knowledge.

In his concluding chapter, Wood presents a discussion of the meaning of truth which again combines the features characteristic of his whole study: on the one hand a criticism of current epistemological ideas that aims to go far, and on the other a surrender to these same ideas. Maintaining the definition that truth is a correspondence between the meaning of a proposition and a factual situation, Wood recognizes that "bare facts cannot be subsumed under or assimilated to pure meanings, and hence the fact which constitutes the verification or falsification of a propositional meaning is not a bare fact, but a fact suffused with conceptual meanings." Wood is thus at

the threshold of a theory which places the problem of verification into a critical context transcendent to the homogeneous continuum of logic. For, the conceptual meanings with which the facts are suffused point to the material as well as intellectual totality which constitutes experience. Wood does not follow up this lead, however. He replaces the "bare fact" by a "non-propositional meaning" which turns out to be "usually a perceptual meaning," referring to the "sensuous core of the percept itself." His anti-positivistic interpretation of verification thus comes to terms with the enemy.

Wood's book is rich in thorough phenomenological analyses in the field of epistemology and logic (see, for example, his critique of the doctrine of self-refuting propositions and of the various aprioristic theories) which are far above the level of current discussions. It is strange, however, that this work, which is so much indebted to the doctrines of the phenomenological school, refrains from any discussion or even mention of Husserl and of the even closer related epistemological studies of Wilhelm Schapp and Edith Landmann.

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