books under "Catholic Writers in the Philosophy of Education" (p. 191). Surely Dubay's *The Philosophy of the State as Educator,* and O'Brien's *The Proximate End of Education* should be included in such a list. Again, all of these are relatively unimportant matters, and detract in no important way from the positive contribution made by the author.

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Formal Logic. By M. Joseph Dopp. Translated by J. Roland E. Ramirez and Robert Sweeney. New York: Joseph F. Wagner, Inc., 1960. Pp. xxvii + 191, with index. $5.00.

Originally done in French, *Formal Logic* is a translation of volume I of a three volume work which strives, judging from the author's forward, to present the elements of both "traditional" and modern logic. Dopp addresses his book to "young minds which have received mainly a literary formation." The author disavows having written for professional logicians. In volume I he presents the elements of "traditional logic."

Basically the task of a text book reviewer, it would appear, is to render a judgment as to whether or not the text book is a usable instrument for college instruction. Unhappily this reviewer must report that he thinks Dopp's book is not. Such an opinion implies, of course, major disagreements with the author's presentation; and in this instance the disagreements are so great that a just criticism by the reviewer is difficult. To do the job properly one would be obliged to argue the main points of the author's doctrine and method, which, if actually pursued, would amount to another book. Even presenting an adequate discourse on one or two major points would entail a length that is out of the question in a review. Hence, this writer will confine himself to a few brief indications of what he thinks unsatisfactory about the book.

To begin, in volume I of *Formal Logic* the author wishes to present (in the words of the translators) "a concise and accurate summation of the main points—'the most perfected part'—of traditional logic." There is, however, no evidence that the author understands or is acquainted with "traditional logic." If one asks, what is traditional logic? he could expect to hear it replied that this is the logic of

Aristotle's *Organon* together with the interpretations and additions that have been made by the principal followers of Aristotle. The latter group would certainly include, as an important element at least, the principal logicians of the medieval Christian schools. Hence, it would seem, especially since it is difficult to obtain the works of the Arabian logicians, that anyone pretending to know "traditional logic" would have as a minimum qualification a reading acquaintance with Boethius, St. Albert the Great, and St. Thomas Aquinas. These men were masters of "traditional logic." Indeed, by the time St. Thomas died the "tradition" was formed. It possessed a "body" of doctrine presented according to a well established order and containing some commonly understood, generally accepted terms and definitions. These were brought forth as the fruit of much rigorous, scientific argument. One would anticipate, therefore, particularly when a work is supposed to present "the perfect part" of traditional logic, that the substance of the terminology, definitions, and doctrine (not to mention the order) would be preserved or at least presented in a contemporary text book pretending to reflect that tradition. Dopp does retain some of the traditional doctrine, yet his definitions and expositions, not to mention a substantial part of his terminology, are often his own. Furthermore, the order according to which he presents his matter is peculiar to him. In short, one is forced to conclude either that Dopp is not acquainted with the scholastic contribution to "traditional logic" or else that he has consciously substituted for it what he views as his own improvements upon the traditional doctrine.

Certainly the fact that a logical doctrine is "traditional" is no guarantee that the doctrine is sound; however, the logic that we have received from Aristotle through the Arabs and the medieval Christian scholars is not something superficial tossed off the top of someone's head. As was said above, this doctrine was rigorously arrived at. The terms are well-chosen, the definitions are the result of long, critical reflection, the conclusions are carefully proved. If Dopp is going to disregard all this, he at least ought to state that he is doing so, and he ought to declare that his book contains a great deal that is Doppian rather than Aristotelian or "traditional."

It is a mistake to think that because one discusses, say, the square of opposition or the predicaments, he is doing "traditional logic." The reasons adduced and the definitions given are formal to any attempt at scientific presentation. On such grounds Dopp's work does not qualify as "traditional."

Nor may one assume that the manuals which have been written since the fourteenth century are truly " traditional," for such is not the case. Indeed, " traditional logic " is so ambiguous as to be almost meaningless. It would seem that the only sense this term could have as applied to *Formal Logic* is " non-symbolic." Understood this way, however, " traditional " can be applied to Dopp's work.

It is indeed discouraging to see how little real scholarship goes on in regard to " traditional logic." Few people who teach the subject have read any of the important medieval logicians. And what is even worse, students newly possessed of a graduate diploma, students who have not so much as turned a page in a serious logician, assume themselves qualified to teach and to pass judgment from their intellectual vacuum, not only on the elementary manuals they employ in their teaching (which is presumptuous enough), but also upon all matters logical which they happen to encounter. The decadent state of " traditional logic " in contemporary intellectual life is not difficult to explain.

In order for the logician truly familiar with the Aristotelian tradition to see that the work presently under consideration is not a satisfactory text book, the reviewer wishes to point to a few things which he thinks will suffice to substantiate his opinion. For those who are unfamiliar with this tradition the present review will be of minimal value.

First, as a matter of order, Dopp does not begin his book with definition and the logic of the first operation. This topic normally includes a treatment of signs, predicables, ante-predicaments, predicaments, etc. Moreover, in the Aristotelian-scholastic tradition the consideration of all these matters is for the sake of the art of defining, and they are treated as part of the logic of the *first* operation. A definition, after all, is an instrument for manifesting a simple object— the *what it is* of something. However, Dopp begins his book with the proposition (and therefore the second operation), which he proceeds to analyze into subject and predicate, treating the predicate first and the subject second. Then, in relation to the predicate the author considers concepts, total and formal abstraction (presenting a doctrine which the reader of St. Thomas will not recognize), predicables, predicaments, and other topics, some of which pertain to the logic of the first operation and some of which do not. None of the subjects listed, however, belong in a treatise on the second operation. Furthermore, the predicables and predicaments are considerations in material logic; however Dopp identi-

fies the latter with epistemology, and therefore he is unable to make the proper distinction between formal and material logic.[1]

Second, Dopp does not, in this reviewer's opinion, manifest the doctrine that he teaches. Too often things are simply laid out; too often they are stated without proof or justification. Moreover, in his method the author does not seem concerned to pose the problems that need solving, proceeding to the solutions from starting points known to the students. His treatment of supposition is a case in point. Beginning with a discussion of " term," Dopp says:

> According to the scholastics, the natural function of material symbols (written, spoken, or gesticular) is to signify thought contents, and thought contents (perceptions or concepts) refer to realities (real or fictive objects, or aspects of objects). The relation of a symbol to the thought content it symbolizes is called " *signification.*" The relation of a thought content to the reality which it brings to mind is one form of the relation of " *intentionality.*" [2]

Following this there are two paragraphs of historical matter and a parenthesis warning against confusing this meaning of " term " with another meaning the word has when one speaks of the " terms of the proposition." The parenthesis goes as follows:

> (We must not confuse this meaning of the word " term " with that which it has in the expression " terms of a proposition," where it designates the

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[1] Although it is impossible to discuss this topic fully here, because this error occurs throughout the book, it is perhaps advisable to indicate the basis upon which the distinction is properly made. Now as is well known, logic is concerned with an order within the mind, an order of the mind's concepts, its acts. The relations which constitute this order are founded on the known *as such*, and are subject to being distinguished. Some of them are founded on *what is signified* (the matter), and the consideration of these relations of the reason pertains to material logic; others are founded on the *mode of signifying* (a kind of form that can be imposed on several matters) and the consideration of these relations pertains to formal logic. To say that animal is the genus of man and brute is to attribute a relationship of superiority to animal in regard to man and brute, and this relation is founded on *what animal signifies*. One cannot say whether animal is a genus without knowing what the word signifies. On the other hand, in order to see that " A " and " I " propositions are related as contradictories, all that one needs to know is that one proposition is universal affirmative, whereas the other is particular negative. There is no need to know what is signified by the terms of the proposition. Cf. B. Flynn, " The Notion of Formal Logic," *Laval Théologique et Philosophique*, II (1946) 151-156.

[2] P. 98.

two terms of the *propositional relation*. Here it is a question of one of the two terms in a relation of *signification* or of intentionality. Both terms of a proposition are expressed or apprehended by means of terms that are written, oral, or simply mental.)[3]

Having done this, Dopp then goes on to give his doctrine on supposition:

> To each of these types of terms there can correspond different *suppositions*, or kinds of supposition. In general the supposition of a term is its value for the mind as a substitute for the thoughts (if it is a question of a written or oral term) or for the realities (if it is a matter of mental terms) which it serves to evoke.
>
> The supposition of a *subject* term is the substitutional value of the term which expresses or comprises the subject, taken in relation to the supposit or supposits of the predication.
>
> We speak in this sense of the supposition of the co-subjects of a relational proposition, and also of the supposition of the (relatively) concrete elements mentioned in a relative predicate. Indeed, like the subject of predication these terms should designate one or more supposits.[4]

Following this there is a four-line paragraph referring to the concept taken under the status of (Doppian) formal abstraction and the concept taken under (Doppian) total abstraction, which two he regards as having distinct suppositions.

Doctrinal objections can be raised against what is presented in the above paragraphs, but the quotation is introduced here to make another point, namely, that the whole matter is presented badly. In teaching supposition the problem is to distinguish between signification and supposition, both of which contribute to the meaning a term has as a part of the proposition. This is the confusion to be clarified, but nothing is done by Dopp to show the problem, much less give the principle according to which the signification and the supposition of a term are distinguished. Furthermore, no reference is made to the doctrine contained in St. Thomas' commentary in the *Peri Hermeneias*,[5] which manifests a fundamental distinction without which the doctrine of supposition is unintelligible. Dopp's presentation of supposition is completely non-argumentative, a serious fault in a treatise that wants to be scientific. This deficiency occurs throughout *Formal Logic*.

As a third illustration of why the reviewer regards Dopp's book as unsatisfactory, it is useful to point out what the book's author gives as the *primary instance* of the syllogism:

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[3] P, 99.   [4] P. 99.   [5] I, 1, n. 9 (Leonine ed.).

The most simple instance of *reasoning* properly speaking (if we deny this name to immediate inferences) is the one based on two categorical predicative propositions having *one identical subject* in common.

The scholastics called this type of reasoning an *expository syllogism* (syllogismus expositorius). . . .

Thus: Judas is an Apostle. Judas betrayed. Therefore some Apostle betrayed. . . .[6]

Now for those who are genuinely familiar with the Aristotelian doctrine, it is well known that the primary instance of the syllogism is an argument with universal terms and universal propositions, for the reason that logic is interested in the syllogism primarily insofar as it is an instrument of scientific discourse. Expository syllogisms are as far away from the primary instance of the syllogism properly said as anything can be; they are syllogisms only in a very diluted sense. In a scientific, logical treatise expository syllogisms should be treated last, after the syllogism porperly speaking has been considered.

This backwards mode of presentation is well suited to mislead. It has a tendency to distract the mind into the consideration of singular propositions and grammatically complex verbal structures which have no true logical value but serve only as parlor-game puzzles for the bored. This is a fault some other logicians, too, do not avoid.

To show how little the author understands some of the things he writes about, it is useful to quote what he has to say about the figures of the syllogism:

The *figures* of the syllogism are determined by the logical function (attribute or predicate) exercised by the middle term in each premise.

A priori only four figures are possible. The middle term can be:

1) Attribute in the major and predicate in the minor. This is the *first figure* (or, more precisely, the direct moods of the first figure).

2) Predicate both times. This is the *second figure.*

3) Attribute both times. This is the *third figure.*

4) Predicate in the major and attribute in the minor. This would be the *fourth figure.* The traditional writers considered this type of syllogism more as one of the first figure in a somewhat abnormal position. Following Aristotle, the scholastics preferred to call them "*indirect moods of the first figure.*"[7]

Now Dopp has given the right principle according to which the number of figures is determined, namely by the position which the middle term can occupy in relation to the extremes. But the professor

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does not understand what he says. Identification within the mind is made through predication, and the normal order of predication demands that the more universal be attributed to the less universal. Hence, we say " man is an animal," not " animal is a man." In order to use " animal " as a subject in relation to " man," it must be restricted by " some " or an equivalent particle. Consequently, the middle term can be related to the extreme in three ways: 1) as between the major and minor in universality, in which case the middle will be subject with respect to the major and predicate with respect to the minor (1st figure); or 2) as more universal than both extremes, in which case the middle is predicate with regard to both extremes (2nd figure); or 3) as less universal than both extremes, in which case the middle is subject with respect to both extremes (3rd figure). *It is impossible that the middle term be simultaneously more universal than the major extreme and less univeral than the minor exireme, which is what the so-called fourth figure, if it were a reality, would demand.* What appears to be a fourth figure is in reality a mood which concludes indirectly in the first figure.[8] Dopp misses this point entirely and treats the " fourth figure " as if it were a bona fide disposition of the terms. He does not deal with the scholastic objections he mentions.

The above are but a few of the more easily and briefly presented objections to *Formal Logic.* There are others which could not be given here without this review running to an inordinate length. However, it seems to the reviewer that these rather brief considerations should suffice to manifest the generally unsatisfactory character of Dopp's book for anyone who is convinced that " traditional logic " is worth teaching well.

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[8] Cf. St. Albert, *Opera Omnia,* I, *Liber I Priorum Analyticorum,* II, C. II (ed. Borgnet); C. XIV, near the end, p. 515.