

## INTRODUCTION

This work deals with the logical properties of the ‘*qua*’ connective, “that treacherous little word ‘as’.”<sup>1</sup> This connective is represented by many expressions in ordinary language, such as ‘insofar as’, ‘in virtue of’, and ‘in the sense that’. Traditionally, a use of this connective was called a reduplication. I shall trace the development of the theory of reduplication. As I shall show, this theory has its roots in various passages where Aristotle discusses ‘*qua*’ propositions. Islamic and Latin medieval philosophers then contributed to the topic. From all this there arose a theory of ‘*qua*’ propositions, or a theory of reduplication, in the high medieval period (1250-1350). Although there are of course different philosophers with different views on reduplication in that period, it will become clear that their views are extremely similar, and that it makes sense to talk of the rise of a single theory of reduplication. Indeed, the similarity of their views is due to their using Aristotle’s works as a common reference point: They all heed what Aristotle says about ‘*qua*’ propositions, and attempt to offer analyses that demonstrate the truth of those ‘*qua*’ propositions that Aristotle (as well as others in the Aristotelian tradition) asserts and the validity of inferences involving ‘*qua*’ propositions that he maintains.

So I shall be dealing with propositions of form ‘S is P *qua* M’, which, dropping the italics and the single quotes, I shall henceforth call ‘qua propositions’. ‘Qua’ will represent the type of the connective, which has different grammatical forms. When ‘qua’ appears in italics, it is meant to be the particular connective, ‘*qua*’.

The program that I shall follow is this: First, I shall consider those passages in which Aristotle discusses the use of qua phrases and propositions. Next, I shall discuss Islamic philosophers, who wrote about qua propositions while commenting on those passages in Aristotle. Then I shall consider Latin medieval philosophers of the period of the old logic, when the *Analytics* and the *Sophistical Refutations*, which contain important passages on qua propositions, were at best not well known. Next, I shall discuss various versions of what may be loosely called the theory of reduplication. I shall consider various philosophers of the High Middle Ages on the following topics: determination, or the qualification of a

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<sup>1</sup> Benson Mates, “Nominalism and Evander’s Sword,” p. 247.

sentence by a modifier; the fallacy of *secundum quid et simpliciter*; the exposition of reduplicative propositions; the conversion of reduplicative propositions; the reduplicative syllogistic; the supposition of terms in qua propositions. I shall also discuss certain uses to which the theory of reduplication was put: notably, the Incarnation, the nominalist reduction of abstract terms, and supposition theory. Next, I shall discuss the post-medieval period, where the medieval theory of reduplication was codified and developed further. I shall consider there the classifications and analysis of qua propositions, the formal features of the logical types distinguished, and applications, including Leibniz's extensive use of qua propositions in his writings. I shall conclude with a survey of current work on qua propositions. Finally, I shall summarize the historical development of the theory of reduplication, offer what I consider to be the best version of that theory, and note some applications of it.

Let me make clear the sort of analysis that I shall use. I first shall try to understand each text in its own terms, viz., in terms of the works of the author and the philosophical background of his time. Second, I shall present various views in terms of modern symbolic notation. Such a presentation has the merits of facilitating the comparison of different views, of making the claims being made more precise, if not in regard to meaning at least in regard to truth conditions, and, perhaps, of making the texts comprehensible to a modern reader. Except for the last chapter, where I explicitly make some evaluative remarks on the theory of reduplication, I am simply trying to capture the views of the philosophers with whom I am dealing. When I talk of 'my symbolization', what I mean is 'my symbolization of (e.g.) Aristotle's truth conditions for accidental qua propositions'.

The formal symbolic system that I shall use is a natural deduction system, with both basic rules and derived theorems. The modal system that I shall employ is also one of natural deduction, of strength T. I use ' $\supset$ ' for material implication, ' $\equiv$ ' for material equivalence, ' $\rightarrow$ ' for formal implication (i.e.,  $L(A \supset B) =_{df} (A \rightarrow B)$ ), and ' $\leftrightarrow$ ' for formal equivalence.

To be sure, using a simple logical system like modal predicate logic to analyze complicated linguistic expressions in many languages and historical periods has its drawbacks. I shall occasionally discuss some, e.g., restrictions on Addition in Chapter Three. I presuppose, though, one modification to the currently standard semantics in modal predicate logic: I allow in my symbolization, as indeed traditional philosophers demand, that propositions such as 'a man is a rational animal' not only are necessary, but can be shown to be so in the formal system. The way that I provide for this is not very profound perhaps, but it is clear. Along with the introduction of predicates ('Mx' for 'x is a man' or 'x is human') with an interpretation, I

require that their (Aristotelian) definitions be included ('Rx' and 'Ax' are included in the system, and stand for 'x is rational' and 'x is an animal' respectively, and ' $Mx =_{df} (Rx \ \& \ Ax)$ ' is a postulate of the symbolic system). Given this requirement, it is of course true that it is necessary that a man is rational, since that is a theorem of that logical system. I take it that 'a man is necessarily risible' is true in the same way, although the status of *propria* is indeed a murky one; perhaps a primitive, asymmetrical relation is needed to distinguish propria from the constituents of the essence of a thing. This way of treating statements of necessity may seem arbitrary. However, it should be remembered that it is a major criticism of essentialism and traditional philosophy that it has an *ad hoc* character as to what properties are essential to something. So it is not surprising to encounter the same problem when symbolizing claims of traditional philosophy. Moreover, in an interpreted calculus it is not so unreasonable to take as part of the interpretation, or conceptual framework, relations between the meanings of the terms used. E.g., given current linguistic conventions, there is a fixed relation between 'bachelor' and 'male'. This relation will not be expressed in the predicate expressions themselves, and so it is reasonable to express that relation in the formal system as a postulate of the interpretation.

Many of the historical claims that I shall make are subject to error, due to the lack of information for many periods in the history of logic. In particular, many attempts to date works absolutely, or even relative to one another, are at best informed guesses. In ordering this work, I have tried to conform to a historical order with which most scholars would agree.

This book is arranged chronologically. I have attempted to give a representative survey of various logical theories of 'qua' propositions. I can hardly do more than that, given the incomplete state of research in many periods, especially the Islamic and the Latin medieval. The dating that I have used is assimilated from the work of many scholars.

Within this chronological structure, I have analyzed and formalized various theories of qua propositions. For someone interested more in the logical theory than in the history, I recommend reading Chapter Eighteen first, and using the references there to work backwards. I would advise someone interested mainly in periods later than Aristotle to do likewise. In general, the summaries of the first two sections of Chapter Eighteen may be used as an analytical table of contents.

I have provided translations of all texts quoted, even where there are superb existing translations. My main motive in doing so is to provide translations uniform in vocabulary and diction. Often translations with much more literary merit than those I have offered obscure the technical features of the texts that I wish to explore. In consequence, my own translation style is intentionally quite literal and often, like the original,

quite stilted. I attempt to use a single English term to translate the same term, if at all possible. I leave claims about the same term's having different meanings in different authors to the interpretation and analysis.

I cite texts by whatever method I think will make locating them most convenient. I follow the same course in identifying texts in the notes. When the text is not paginated, I identify my own pagination in brackets: '[ ]'.

Although this study is quite specialized, I believe it to be of general philosophical interest. In my opinion, one of the most difficult things to get clear about in philosophy is the status of aspects of things. Are they separate entities, modes of things, or identical to the things of which they are aspects? I shall note some cases in which it is necessary and yet difficult to answer such questions. Let me simply remark here that such problems are crucial in ethics, in regard to the roles or contexts in which a person acts. Is it consistent and/or good, to act according to different, incompatible standards in different roles?