SYMBOLIC LOGIC AND THE DOCTRINE OF THE TRINITY

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In *Religion in the Making*, Whitehead writes: "Today there is but one religious dogma in debate: What do you mean by 'God'? And in this respect, today is like all its yesterdays. This is the fundamental religious dogma, and all other dogmas are subsidiary to it."[1] To those familiar with the history of dogma and theology these words should not appear as unusual, for they merely express the conviction that the central task of theology is to construct a theory of God which is descriptively meaningful and true. In short, the aim of theology is to give clarity and credibility to man's vision of God.

In our contemporary culture, there are any number of heuristic devices which have been employed in the fields of historical and systematic theology in an analysis and clarification of "the fundamental religious dogma" of which Whitehead speaks. To date, however, there has been very little done in the way of applying symbolic logic and semiotics in these disciplines.[2] This state of affairs is to be greatly lamented, for symbolic logic and semiotics are two of the most powerful tools ever devised as aids in clarification and understanding. Richard M. Martin, one of the prominent logicians of our day, notes this neglect and points out that "in discourse about 'God' we find. . .an extremely interesting and historically important area for the use of logic that might indeed be very profitable to explore on a more modern footing."[3]

In what follows, I will attempt to exhibit the usefulness of symbolic logic and semiotics in the field of theology by means of an analysis of the doctrine of the Trinity with only the most elementary notions of first order logic and first order semiotics.[4] In this analysis, I hope to show how the trinitarian problem can be understood in terms of a semantical theory of the identification of unique individuals.

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[1]Alfred North Whitehead, *Religion in The Making*, New York: The Macmillan Company, 1926, pp. 67-68.

[2]See especially the works of Jan Salamucha, J. M. Bochenski, Bowman L. Clarke, Frederick Ferré, and Richard M. Martin.

[3]Richard M. Martin, *Belief, Existence, and Meaning*, New York: New York University Press, 1969, p. 23.

[4]On the notions of first order logic and first order semiotics see Richard M. Martin, *Logic, Language and Metaphysics*, New York: New York University Press, 1971, Chapter I. Also *Belief, Existence, and Meaning*, Chapter I.

I

In Western culture the patristic age stands out intellectually as the first creative period in the history of Christian theology. In this epoch, systematic or scientific theology was born, and it was conceived precisely to give clarity and credibility to the Christian vision of God. Ever since, theological inquiry about God has revolved around three distinguishable but not unrelated problems. These are: (1) the problem of identifying and describing God, (2) the problem of God's existence, and (3) the problem of God's interaction with his creatures. The logical sequence of these problems is crucial, for it is foolish to discourse about the drama of God's relations with his creatures if God does not exist, and in determining whether he exists, one must first have some notion as to whom or what it is for which existential claims are being made. The logical priority of the first problem over the second and the second over the third reflects the traditional division of theology into natural theology and revealed theology, the former dealing with the first and second problems and the latter dealing with the third.

There is no period in the history of Christian theology wherein all three of these problems have not been touched upon in some way or another. In the Nicean age, however, the first of these problems dominates theological discussion. This is understandable from both the logical and historical points of view, for apart from knowing who or what was creating, revealing, and sanctifying, the Christian gospel made little sense in the Graeco-Roman world. The theological greatness of the Greek and Latin fathers was that they were able to utilize the most sophisticated philosophical systems and the most finely constructed linguistic and logical tools of their day to deal with this issue. The outcome of their intellectual activity was the doctrine of the Trinity. The theological explication of the divine monarchy in terms of *substantia* and *personae* and *ousia* and *hypostaseis* was their solution to the problem as to whom or what is God. Although the fathers did not believe that everything could be known or expressed about God, they did believe that something could be known and that what could be known could be expressed clearly and well. In short, they accepted the Platonic-Aristotelian dictum that to be is to be cognizable and expressible.

The doctrine of the Trinity is by no means easy to understand. Some have found the doctrine incomprehensible and utter nonsense. Others have viewed it as an imaginative and metaphorical attempt to express a mystery which theoretically is neither identifiable nor de-

scribable. Still others have considered it as a relatively clear and articulate theory of God. Understanding admits of degrees, however, and no doctrine or theory is as clear as it might be. If for no other reason, this is why both historical theology and systematic theology must be done again and again.

In the informative discourse of Judaism and Christianity, the terms 'God' or 'Yahweh' or their vernacular equivalents in other natural languages have been used primarily to refer to or designate one and only one object, entity, or individual. As such, they function as proper names and not as common names. They are singular terms or names rather than general terms or predicates. If the individual designated by 'Yahweh' and 'God' exists, then the terms have a referent or a denotation.

As a name, the term 'God' is syntactically more ambiguous than the term 'Yahweh,' for spelled with a lower case 'g' it becomes a predicate. Normally, a predicate is said to designate a property or a relation and to denote severally the members of the class having the property or being ordered by the relation designated by that predicate. If there are no members of the class in question, then the predicate being used has no application and its denotation or extension is empty or null. In Judaism and Christianity, however, it is usually maintained that God is the only member of the class of gods and that there can be no other members of that class. Thus the name 'God' has the same denotation as the predicate 'god,' and the predicate 'god' can have no other denotation than that of the name 'God.' At least this is the monotheistic assumption, and it is this assumption that the fathers of the Church were trying to articulate and defend.

These remarks, would indicate, I believe, that discourse about God bears a strong family resemblance to discourse about any individual. Names or name substitutes are used to refer to the individual that is being discoursed about and predicates are used to designate the properties that an individual has or the relations that hold between or among individuals. That is, when one uses a name or name substitute to refer to a particular unique individual, one usually associates certain property and relation expressions with that name. These expressions along with other words and symbols of a language enable one to specify which object is being referred to as well as to specify what kind of object it is. For example, if I use the name 'Amburn' to refer to my wife, I can easily say that she is "the only daughter of Mildred and Jay Huskins of Statesville, North Carolina." I can also say that she is "a cute thing, a graduate of Duke, a puppetteer, and a mother of four

boys." In so doing, I have identified her and described her. I have said who she is and what she is. If pressed, I can make my identification more specific, and I can describe her with many more general terms or predicates.

I suggested at the beginning of this paper that the theological problem which dominated the Nicean age was that of identifying and describing God. As such, the fathers of the Church were faced with fundamentally the same kind of problem as anyone who uses a name to refer to or designate a particular individual. Their task was that of finding symbols or expressions which could identify and describe the object of their discourse. And when they were pressed, they attempted to make their identification more specific and their description more complete. Interestingly enough, our own age is much like that of the Nicean Age, for our culture appears not to know who or what the name 'God' designates, if it designates at all. This state of affairs is most keenly expressed in the current and heated debate about our so-called "God-talk." When the question "Who is God?" is posed, we do not know what to say. For trinitarian orthodoxy, the answer seems to be clear. God is the Father, the Son, and the Holy Spirit or the Creator, the Revealer, and the Sanctifier. The three identifying descriptions 'the Father,' 'the Son,' and 'the Holy Spirit,' or 'the Creator,' 'the Revealer,' and 'the Sanctifier' are the linguistic expressions which present the three eternal and distinct modes of the divine being. The three hypostases are, in the words of Prestige, "distinct expressions of a single divine reality"[5] or "objective presentations of the one divine being."[6] Stated a bit differently, the three hypostases of God constitute the set of eternal attributes which enable a person to identify God as distinct from all other objects.

Most often when one speaks of properties or relations, or attributes, one views them as common to the members of a class. For instance, if I say that so and so is a man, I am asserting that so and so is a rational animal, and a rational animal is something that more than one thing can be. But when I am identifying one object as unique and distinct from all other objects, I have to specify a set of unique attributes which only that object has. In the age of the fathers, individual uniqueness was difficult to deal with. For the most part this was due to the underdeveloped state of the logical and semantic machinery of that day. In the late Middle Ages, Duns Scotus introduced the term "haecceity" into the logical vocabulary as a term which signifies the unique attributes of one and only one individual, and in so doing he

[5]G. L. Prestige, *Fathers and Heretics*, London: S.P.C.K., 1940, p. 87.
[6]G. L. Prestige, *God in Patristic Thought*, London: S.P.C.K., 1952, p. 254.

was attempting to clarify the problem of specifying uniqueness. In this century via Frege, Carnap tried to further the discussion with his notion of an individual concept.[7] Notions like 'hypostasis,' 'haecceity,' and 'individual concept,' however, are not very clear. Intuitively, they pertain to the unique attributes of an individual which sets that individual apart from all other individuals, or to the set of conditions that determine membership in a class which can have only one member.

If one construes the divine hypostases in this way, one is able to express the doctrine of the triune god rather clearly. The doctrine that God is the Father, the Son and the Holy Spirit or the Creator, the Revealer, and the Sanctifier can be summed up quite nicely in quantification theory with identity. Allowing the individual constant 'g' to be an abbreviation for name 'God' and a substituend for the variable 'x,' the fathers seem to be asserting the following: There exists an x such that x is a creator and x is a revealer and x is a sanctifier, and given any y if y is a creator and y is a revealer and y is a sanctifier, then x is identical to y. Allowing the predicate constants 'C' 'R' and 'S' to be abbreviations for 'Creator' 'Revealer' and 'Sanctifier', the above sentence can be formalized as: $(Ex)\{(Cx.Rx.Sx).(y)[Cy.Ry.Sy) \rightarrow (x=y)]\}$. Now to assert that God is the one and only member of the class of Creators, Revealers, and Sanctifiers certainly does not make it so, but if we stipulate that 'Creator' be defined as 'necessary condition for all beings including itself' and 'Revealer' as 'necessary condition for all aims, rationality and order including its own' and 'Sanctifier' as 'necessary condition for all value including its own' then it would be analytically true that there could not be any more than one member in the class of creators, revealers, and sanctifiers. That is, if God is the necessary condition for all that was, is, or might be, including himself, then whatever was, is, or might be, excluding himself, cannot be the necessary condition for God.

It is also interesting to observe that by construing the hypostases of God as the eternal identifying characteristics of the members of a class which can have only one member, the problem of monotheism vs polytheism can be nicely solved. If one specifies that the conditions for membership in the class of gods consists of being a creator, a revealer, and a sanctifier, and these metaphorical terms are explicated as in the stipulated definitions above, then it follows that there could not be any more than one member of the class of gods. Such conditions of membership can also be formulated in quantification theory: For

[7]Rudolf Carnap, *Introduction to Symbolic Logic and its Applications,* New York: Dover Publications, Inc., 1958, p. 40.

any x if x is a god, then x is a creator, and x is a revealer, and x is a sanctifier. This sentence can be formalized as $(x)\ [Gx \rightarrow (Cx.Rx.Sx)]$. Unlike the previously formalized sendtence, this sentence does not assert that a god exists. It only asserts that if anything exists in the domain of gods, then it must fulfill the conditions of being a creator, a revealer, and a sanctifier. The orthodox fathers, to be sure, did believe that there is one and only one god. If my interpretation of the monotheistic-polytheistic issue is correct, then my earlier remark that the monotheistic assumption involves the assertion that the predicate 'god' has exactly the same denotation as the name 'God' makes considerably more sense.

So far I have protected myself from one of the accusations which could brand me as a modalist, for I have asserted that the unique identifying attributes of God are eternal or necessary attributes or attributes which could not be otherwise. In more traditional language, these characteristics of God are modes of presentation of the eternal economy of the Godhead rather than the temporal economy of God. But what is the distinction between 'being the creator of,' 'being the revealer of,' and 'being the sanctifier of'? What of the unbegotten characteristic of the Father, the begotten characteristic of the Son, and the processional characteristic of the Holy Spirit? The terms 'agennetos,' 'gennentos,' and 'ekporeutos' appear to be used metaphorically of God. How to un-pack these metaphors is extremely difficult. Kelly's assertions that "the distinction of the Persons is grounded in their origin and mutual relation" and that "the divine action begins from the Father, proceeds through the Son, and is completed in the Holy Spirit" are suggestive.[8] Perhaps what the fathers were struggling with can best be expressed in terms of Whitehead's ontological principle that "apart from things that are actual, there is nothing—nothing either in fact or in efficacy."[9] If God is the necessary condition for all beings, all aims, rationality, and order, and all achieved value including his own, then all aims, rationality, and order, and all achieved value derive from the actual being of god and are exemplified and realized in some sense by actual beings, either God or the creatures.

It is perhaps this same ontological principle that necessitates the assertion that God is an ousia or a concrete reality. In applying the term 'ousia' or 'substantia' to God, one by implication denies that God is an abstract individual such as a class, a property, or a relation. To

[8]J.N.D. Kelly, *Early Christian Doctrines,* New York: Harper and Brothers, 1958, p. 265 and p. 267.

[9]Alfred North Whitehead, *Process and Reality,* New York: The Macmillan Company. 1929, p. 64.

be sure God is a member of a class, but that class is the class of all concrete individuals. Again, this is the monotheistic assumption. The expression 'concrete individual' is by no means unambiguous. It can denote atoms, molecules, cells, organisms, persons, fabricated objects and even the spoken sounds and written marks of a language. From a logical point of view, the expression is neutral or almost neutral in terms of subject matter. In logic the expression 'concrete individual' is distinguished from the expression 'abstract individual' in that the latter is mainly used to refer to classes. In the science of metaphysics, however, the expression 'concrete individual' is perhaps intuitively best explicated by the remark of Socrates in the *Phaedrus* (270D) that if one wants to know the nature of a thing he must find out "what natural capacity it has of acting upon another thing, and through what means; or by what other thing, and through what other means, it can be acted upon." Although the fathers were reluctant to speak of how God could be acted upon due to the notion of impassibility, they were interested in the dynamic connotations of 'ousia' or 'substantia.' Contrary to much rhetoric concerning how Hebrew thought is to be distinguished from Greek, it is interesting to note that this Platonic notion of being is quite similar to that of the Hebrew verb form of 'to be' which is the basis for the Tetragrammaton YHWH, and which according to many scholars signifies action and reaction.[10] Aristotle appears to have modified Plato's suggestion by understanding being in terms of activity (energia) to the neglect of the polar contrast of receptivity. At any rate, if this exegesis is correct, it appears that Aristotle's emphasis won out. Speaking of the theologians of the patristic age, Pelikan writes: "It is significant that Christian theologians customarily set down the doctrine of the impassibility of God as an axiom, without bothering to provide very much biblical support or theological proof.[11] Be that as it may, the main point to note is that when the fathers applied the predicate 'ousia' to God its prime signification was *that* concrete existent or *that* particular concrete individual. As such they were faithful to Aristotle's understanding of proto-ousia. God is *that* singular concrete existent; secondarily, he is a member of the class of all concrete existents. Commenting on these theologians, Prestige asserts that "they all taught that God is a single being, as is guaranteed by the doctrine of identity of ousia. They insist that by identity they mean identity and not similarity, and their contention is born out by their

[10]Charles Hartshorne, *The Logic of Perfection,* Lasalle, Illinois: Open Court Publishing Company, 1962, p. 8.

[11]Jaroslav Pelikan, *The Emergence of the Catholic Tradition* (100-600) Chicago: The University of Chicago Press, 1971, p. 52.

several expositions of the unity and singularity of all divine motion, operation, and energy."[12]

By applying the predicate 'being' to God, God is classified as a being among other beings. Yet, God is not just an ordinary ousia, for he is "an ousia surpassing all ousia."[13] God surpasses all other beings in that he is the one member of the class of concrete individuals whose existence is un-originated or uncreated, while the existence of the creatures is originated and created. God is *agenetos;* the creatures are *genetos.* In short, God is the one concrete individual whose existence is not contingent. God is the one transcendent being.

To make their description of God even more accurate, the fathers applied the predicate 'spirit' to him. Not only is God in the class of beings, he is also in the class of spiritual beings. Thus the nature of that particular individual who was the object of the father's discourse is spiritual.[14] In applying the predicate 'pneuma' to God, one denies that the divine nature can be correctly understood in corporeal terms. God is a sentient individual. By implication, God acts, thinks, and feels. At least this would appear to be the case. Once again, the axiom of divine impassibility and immutability poses a problem. Although Prestige, speaking of the fathers, argues that "there is no sign that divine impassibility was taught with any view of minimizing the interest of God in His creation or His care and concern for the world that He made," I do not believe that the fathers ever resolved the issue concerning the influence of the world on God and the extent to which the evil of the world affected the divine happiness.[15] Yet, it does seem to be the case that the psychic predicates would have to be applicable to God if his nature is spiritual or if he is the one transcendent spirit.

II

While I have not dealt with all of the descriptive predicates that have been applied to God or which can be or should be applied to him, the ones I have dealt with are the most crucial to what might be called the othodox mainstream. By associating he conditions of being a creator, a revealer, and a sanctifier with the conditions of being a god, a transcendent being, and a transcendent spirit, the orthodox point of view can be delineated. In a very real sense, it appears that for the orthodox mainstream to be a god, a transcendent being, and a transcendent spirit is to be a creator, a revealer, and a sanctifier. And when so analyzed, the class of gods, transcendent beings, and transcendent

[12]Prestige, *God in Patristic Thought,* p 265.
[13]*Ibid.,* p. 281.
[14]*Ibid.,* p. 17.
[15]*Ibid.,* p. 11.

spirits can have no more than one member. To assert less than this is to fall into polytheism, modalism, or monism—the three great heresies of the ancient Church.

In constructing theories about God adequate for today, however, we cannot just repeat what the faith of the fathers affirms. Without violating the integrity of the orthodox vision or theories, we must inevitably find a metaphysical and logical framework within which we can communicate with today's plain man and today's specialist. In my own analysis of the doctrine of the trinity, I have utilized certain current notions of logic (specifically Russell's way of handling identity and definite descriptions) as well as the notions of necessary and sufficient conditions. Perhaps other notions would prove more fruitful. What I have done in the first part of this paper is to specify a set of conditions which I associate with the name 'God' and which I believe articulate the trinitarian insight. The formalizations add exactness and brevity to the discussion, but they are for the most part trivial without a theoretical framework and precise concepts or terms which clarify and give credibility to God and his relations with the universe. Thus a theory of God adequate for our time must not only be internally consistent but also externally consistent with current physical and metaphysical theory. Needless to say, current physical and metaphysical theory is by no means stable, and perhaps we do not yet have theoretical frameworks within which we can do theology. From my point of view, one of the most crucial tasks at present is to work out a theory of nature and concrete existence which is meaningful and true and then see if the monotheistic vision can be clarified and given credibility within that theory. Here I am only suggesting what is expressed in the preface of Ivor Leclerc's book *The Nature of Physical Existence.*[16] It is also my belief that the theologian must stay abreast with current developments of logic and semiotics, especially what Martin calls "philosophical logic" in contrast to mathematical and higher order logics.[17] For example, a logic of events is most relevant to the problem of God's relation to the events of nature and history as well as the problem of the life history of God as an enduring entity. I have attempted to struggle with some of these problems in two previous papers, but much more work needs to be done.[18]

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[16]Ivor Leclerc, *The Nature of Physical Existence,* New York: Humanities Press.

[17]See footnote No. 4 above.

[18]See my article "Descriptive Language and the Term 'God' ", *International Journal for Philosophy of Religion,* III, No. 4 (1972), 223-239. Also a forthcoming article "Informative Discourse and Theology" in *Religious Studies.*

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