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CAUSALITY AND EVOLUTION

The Search for a Proportionate Cause of Evolutionary Processes

I WILL ASSUME in the following that the principle of causality which states that " nothing which comes to be, comes to be without a proportionate cause" cannot be eliminated from empirical science, although the effort has repeatedly been made. [1]

Consequently, we have to face squarely a fundamental question about all theories of evolution: How can more complex

[1] Even positivistic philosophers of science have not been able to eliminate the principle of causality as a necessary assumption of science, although they have striven to give it a Humean form by arguing that it is not an inductive generalization, but a rule of thinking which is necessarily required by any theoretical science as long as science retains the goals which it has *historically* accepted. See the discussion in Ernest Nagel, *The Structure of Science* (Harcourt, Brace and World, Inc.: N.Y. 1961), pp. 316-324. "But it is difficult to understand how it would be possible for modem theoretical science to surrender the general ideal expressed by the principle (of causality) without becoming thereby transformed into something incomparably different from what that enterprise actually is." p. 324. See also Mario Bunge, *Causality, The Place of the Causal Principle in Modern Science* (Harvard University Press: Cambridge, Mass., 1959).

and highly integrated entities arise out of simpler and less organized entities? How can the "greater come from the less"? How can a *new* entity" emerge"? What is the *proportionate* cause of this emergence?

Some have tried to escape the difficulty by arguing that "evolution" (as the etymology of the word indicates) is only an "unfolding," an explicitation of what is somehow already there, like the development of an embryo. Others have argued that it is only subjective to consider an elephant "greater" than an amoeba. But neither argument is more than an evasion of a genuine problem. We now have a rather detailed knowledge of various evolutionary processes, and none of these resemble embryological development except by the loosest of analogies. Again there is a precise, objective, and empirical sense in which an atom is a more complex and integrated system than an electron, a molecule than an atom, an organism than a molecule, a mammal than a protozoan, the human brain than a bird brain. [2]

I£, therefore, we are to have a coherent, philosophical understanding of the evolutionary view of the world and man which modern science has shown to be the only plausible account, we must identify in that world-picture a *proportionate* cause, a sufficient agent of evolutionary emergence.

Four principle levels of this emergence are commonly distinguished today: [8]

(I) *Nuclear* evolution which proceeds by nuclear synthesis and gives rise to atoms.

Chemical evolution which proceeds by chemical reactions and gives rise to molecules of greater and greater complexity.

• Ludwig von Bertalanffy, *General System Theory* (George Braziller: New York, 1968), pp. £7-£9, referring especially to the work of Kenneth Boulding.

• Melvin Calvin," Chemical Evolution and the Origin of Life," *American Scientist,* 44 (July, 1956), £48-£63 proposes this four-fold evolution and gives the following time table. Nuclear evolution-10 billion years; chemical evolution-£lh billion years; biological evolution-! billion years; psychosocial evolution lh million years. See also his *Chemical Evolution: Molecular Evolution towards the Origin of Living Systems on Earth and Elsewhere* (Oxford, 1969).

(3) *Biological* evolution which proceeds first by abiogenesis, and then by genetic mutation and natural selection to give rise to the species of living organisms of increasing complexity and greater flexibility in adapting to environmental changes.

(4) *Psychosocial* evolution by which the human species produces a vast array of cultures which are not genetically determined but invented, and in which there has been a progress toward control of the environment by scientific technology, and the emergence of self-directed human personalities.

These four kinds of evolution take place through radically different processes and are only analogously called by the same term " evolution," yet they form a sequence in which the more complex process presupposes the simpler. The higher the level of evolution, the more strikingly novel, diverse, and unique are the products. At the nuclear level only about a hundred atomic species emerge (a few hundred if we count isotopes). Hundreds of thousands of kinds of chemical molecules occur in nature, but the species of living organisms are counted in the millions. Finally, although there is only one human species biologically considered, psychosocially considered there are billions of unique human personalities playing their roles in a vast variety of human cultures. The more advanced the culture, it would seem, the more the individual personality becomes conscious of its own uniqueness in history, and the more this uniqueness is valued and cultivated.

Evolution and Anti-Evolution

It would be a gross error to think that all natural, cosmic processes are evolutionary, that is, processes of emergence. On the contrary the more universal cosmic processes are anti-evolutionary, while evolutionary processes appear to be only local and temporary. Anti-evolutionary processes, tendencies by which every system in the universe is disorganized, disrupted, and dissolved into a universal random flux of particles in an equilibrium of undifferentiated and minimal occurrences, are everywhere monotonously evident. In most of the vast regions of space, and most of the immense epochs of time, nothing

new, or at least not much ever happens.[4] Complex systems whether they be societies, organisms, molecules, or atoms, seem doomed to perdure only in a few places and for a short while.

The law of increasing entropy (or second law of thermodynamics) states that in a closed system all processes ultimately tend to a state of maximum entropy or disorder, because every process in which order is increased in a sub-system involves an increase of disorder in the total closed system.[5] This law is vividly illustrated for us by our present "pollution crisis." Every process by which human technology makes man's immediate environment more orderly, necessarily results in greater disorder of the total environment. In our universe regions of order are oases in an encroaching desert. " Entropic doom " is inevitable and must ultimately prevail over every evolutionary process.

It is wrong, therefore, to think that the second law of thermodynamics is contradicted by the fact of evolution. The law predicts that ultimately a closed system must tend to maximum entropy, but it does not determine the *rate* of this increase of entropy. It is an eschatological prophecy without a date for Doomsday. Entropy is a matter of probabilities, and in every run of probable events there are fl.uctuatigns to either side of a trend. Evolutionary processes appear as such fluctuations in sub-systems within a total system that is as a whole becoming more and more disorderly. These evolving subsystems emerge here and there like gleaming counter-eddies in the dark universal river of decline and then smooth out again.

On the other hand, it is also an error to suppose that the

• Evidence is accumulating, however, that some important chemical evolution does take place in inter-stellar space, producing organic molecules of relative complexity. See *Science*, 170 (4 Dec., 1970), pp. 1116-1117, Donn Bertram, "Interstellar Molecules and Chemistry " "At present five diatomic and five polyatomic species are known (in interstellar space). The most complex molecule thus far is cyanoacetylene, CN- C = C- H."

• On the problem of entropy and evolution see Harold F. Blum, *Time's Arrow and Evolution* (Princeton University Press, 1951) and Albert L. Lehninger, *Bioenergetics: The Molecular Basis of Biological Energy Transformation* (W. A. Benjamin, Inc.: N.Y., 1965).

second law of thermodynamics as such explains these evolutionary counter-currents. Every evolutionary process involves an increase of order (negative entropy or *negentropy)* and this increase requires an appropriate causal explanation, unless we are to abandon the principle of causality which we have assumed. If the term " order " seems too vague, we can think of other equivalent terms such as " pattern," " arrangements," " gestalt," or " system." Perhaps the most useful term today would be the one borrowed from communications-theory: *information.6* The decrease of noise (random, disordered, unpatterned) sound in a radio signal means an increase in patterned sound, and it is this pattern which carries " information."

When any process becomes more orderly, when its degree of information increas,es, we must look for a cause of this increase in orderliness. We cannot simply attribute it to chance, because chance is precisely an occurrence which is random, unpatterned, lacking any *determinate* probability. [7] "Information," although not easy to define with complete generality, can be defined precisely and operationally in specific cases. For example, in chemical evolution we can define the degree of information for various molecules by the number and strength of the chemical bonds required to form each molecule.[8] In the case of organisms

• See Jagit Singh, *Great Ideas in Information Theory, Language and Cybemetica* (Dover, 1966). Chapter VII "Information and Entropy," pp. 78-88 and W. Ross Ashby, *Introduction to Cybemet·ics* (John Wiley and Sons: N.Y., 1968), pp. 174-191. For some objections to the use of the concept by an anti-reductionist see C. H. Waddington, *Towards a Theoretical Biology,* Vol. 1 (Aldine Publishing Co.: N.Y., 1968), Prolegomena.

[7] When, in throwing dice, we say that the " chance," i. e., the probability of a given combination is such-and-such, we really mean that the *sequence* of combinations is chance (without any pattern or order) but that the *frequency* in which a given combination occurs in the sequence is *determinate* (has a definite probability). This probability has a cause, namely, the shape of the dice, the arrangement of the markings, and the force of the throw; the exact sequence is chance, has no cause, and is random. For a helpful discussion see David Hawkins, *The Language of Nature* (Doubleday Anchor Book: Garden City, New York, 1967), c. 6 "Chance and Probability," p. 165-196.

[8] Or in terms of the " energy of configuration." " Complex organic molecules have a large potential energy of configuration: when they are burned they are degraded

we will probably soon be able to define the degree of information for a fly or a rhinoceros in terms of the complexity of the genetic codex of each.

Another way to look at this concept of " information " is to take it in a very literal sense as the amount of information we would need to reproduce *artificially* any product of a natural evolutionary process. Thus, a chemist who wishes to synthesize the chlorophyll molecule needs to understand the details of its structural formula and the processes by which this can be replicated. In principle, at least, it would seem that if man had sufficient information about any natural entity, atom, molecule, or organism, he could reproduce it by repeating the evolutionary processes required, perhaps in more efficient, abbreviated form than the natural ones.

A temporary evolutionary trend within a sub-system of the universe, therefore, means an input of information-bearing energy into that sub-system.

Nuclear and Chemical Evolution

Whether the first stages of nuclear evolution took place in a "big-bang" or primordial explosion or not,[9] it seems certain that such evolution continues within the interior of stars, forging heavier atoms out of hydrogen and helium atoms by nuclear fission and fusion.[10] These processes are possible only

to simple stable products ... which have a much lower energy content." Lehninger, *op. cit.*, p. *15.*

[9] George Gamow, *The Creation of the Universe* (Viking Press: New York, 1961). This "big-bang " hypothesis of cosmic origins still seems to have the edge over the Hoyle-Bondi "steady-state" hypothesis. See William H. McCrea, "Cosmology Today," *American Scientist,* 58 (Sept.-Oct. 1970), pp. 521-527 and the work of Maarten Schmidt of California Institute of Technology reported in *Scientific American,* 224; 11 (Jan. 1971), p. 46.

[10] " Before the Sun was formed, almost every possible stellar temperature, density and life history had been experienced somewhere in our Galaxy. The residues are the many kinds of atoms in the universe. Some of the processes that synthesize one element will destroy others; the enormously complicated composition of our bodies, for example, requires that many different stars contributed atoms to the raw material out of which our Sun, the planets, and ourselves were born." J. L. Greenstein, "Stellar Evolution and the Origin of the Chemical Elements," *American Scientist,* 49 (Dec. 1961), pp. 449-473.

at very high temperatures and pressures. Here the supply of free energy is great, but matter is unorganized, with particles moving in the wildest explosive disorder. Such conditions are rare and in our solar system exist only in the sun, or in a nuclear reactor.

Chemical evolution, by which molecules are built from atoms and more complex molecules from simpler molecules, is much more widespread in the universe, but it does not progress to the higher levels of organization except in very select situations, where temperatures are moderate and there is a delicate balance between a multitude of factors.[11] The more complex the molecule the more complex and balanced the situation required, so that extensive chemical evolution seems more favored on the surface of our earth than at any other site yet known in the solar system.

For brevity's sake I will omit an analysis of nuclear evolution and consider only chemical evolution in order to compare it with biological evolution. If we examine the situation in which a molecule emerges by the chemical combination of atoms, we can distinguish three phases:[12]

First, not only must there be the required materials (the atoms) but a complex set of conditions must exist if a particular chemical combination is to take place. Commonly the atoms must be in a liquid or gas solution of an appropriate temperature and pressure so that they will come in close contact with each other. They must also be properly orientated, since each atom has its own special configuration and must be "fitted " to the atom with which it is to combine.

Second, there must be supplied an *energy of activation.* Before the moment of combination the atoms are stable, independent units which resist disruption of their own internal order. This stability of the isolated atom is a barrier to reaction. When the energy of activation is supplied in the form of

[11] However, see note 4 above for evidence that these conditions may be met in unsuspected situations.

[12] See Arthur J. Campbell, *Why Do Chemical Reactions Occur?* (Prentice-Hall: Englewood Cliffs, N.J.), *1965.*

heat, mechanical, or radiant energy, this barrier is overcome. Each atom loses its individual stability and is modified and integrated into the new molecule.

Third, there is a spontaneous " chemical reaction " in which in most cases superfluous energy is released in the form of heat. This means an increase in the entropy of the surrounding environment, since heat is the random, unpatterned movement of particles. The higher order within the new molecule has been purchased at the expense of increased disorder in its surroundings. It is to be noted that this usually means that in a solution there is an equilibrium situation in which some molecules are formed as others are broken down.

It is in the second of these three phases that the old units lose their individual existence and the new molecule emerges. The third phase may be understood as a kind of" settling down " process in which the new molecule, already formed, becomes stable. By losing superfluous energy to the environment the molecule retains just that internal energy required for its specific type of organization. It is apparent, therefore, that atoms do not " spontaneously " combine purely through forces inherent in the atoms. The spontaneous attractions and repulsions due to the electromagnetic forces in the atoms come into play in the third phase, *after* the moment when the new organization is initiated by the energy of activation. We can conclude that it is this energy, not the fundamental electromagnetic forces inherent in the combining atoms, which is the *proper cause* of the new unit, and which is, so to speak, " built into it."

This conclusion, however, raises a grave difficulty. The new molecule is a complex unity, more complex and more integrated than either of the atoms from which it was formed.[13] How can the energy of activation which is supplied in the form of heat,

[18] Thus the nature and properties of a molecule depend not only on its component parts *(composition),* and on the spatial arrangement of these parts *(structure),* but also on the chemical bonds which unite the parts *(constitution).* These bodies are " fields," a concept that cannot be reduced merely to the arrangement of particles in space but which is essentially dynamic. See H. Remy, J. S. Anderson, J. Kleinberg, *Treatise on Organic Chemistry* (Elsevier Pub. Co.: Amsterdam, 1956), vol. 1, p. 298.

mechanical or radiant energy be the source of the information required to build this new system? How can a generalized force produce so specific an effect, as if a strong wind could produce a house out of scattered planks?

One answer would be to posit a *virtuality* in fundamental cosmic forces of gravitation, electromagnetism, etc., like the *rationes seminales* of ancient Stoic philosophy/ [4] by which they are able to produce all the variety of chemical species. This would mean that somehow in these general forces there is a hidden *code,* an embryonic supply of information analogous to the genetic code in the fertilized zygote. Such a hypothesis seems too fantastic, a return to the " occult forces " of the alchemists.

Another answer given by reductionists is to interpret chemical combination as a simple, mechanical addition of parts. In such a combination no greater comes from the less, since a "sum is equal to its parts." This interpretation, however, is not adequate to our present understanding of the molecule which has wave-mechanical unity in which the constituting atoms perdure only in a modified and integrated form. Thus the orbital electrons of the constituting atoms may no longer belong to a single nucleus within the molecule but to several. A new network of relations between the elementary particles within the molecule forms a unitary system, not a mere juxtaposition of previous systems. [15]

[14] See E. Vernon Arnold, *Roman Stoicism* (Routledge, Kegan Paul: London, 1958 (reissue)), Sec. 178, "The Word of 'seed-power' *(logos spermatikos)* of the universe is one: it is the primal fire in its work of creation. . . . But there are also in individual objects, animate and inanimate, indestructible seed-powers, countless in number, displaced alike in growth, procreation, and purpose; these seed-powers are, as it were, spirits of deities, spread throughout the universe, everywhere shaping, peopling, designing, multiplying; they are activities of fiery spirit working through tension *(t6nos, intentio)* in its highest development. But the seed-power of the universe comprehends in itself the individual seed-powers; they are begotten of it and shall in the end return to it," p. 161 f.; Also see: Max Pohlenz, *Die Stoa* (Vandenhoek-Ruprecht: Gottingen, 1948), 2 Vol. Vol. I, p. 78, and Johnny Christensen, *An Essay on the Unity of Stoic Philosophy* (Scandinavian University Books: Minksgaard, 1962), p. 86.

[15] See F. Brescia, J. Arents, H. Meislich, A. Turk, *Fundamentals of Chemistry,*

It is much more plausible to say that the information built into the new molecule is contained neither virtually in the fundamental forces, nor in the combining atoms, but rather in the *concurrence* of all the factors required for the chemical reaction. The energy of activation considered as free energy, or as reducible to the fundamental cosmic forces, does not itself contain the necessary information, but as *specified* by the total situation it can produce a determined pattern in the new molecule. This " total situation " is not merely static but is a *sequence of events* in which the various factors come into play in an orderly fashion. The formation of .a complex molecule does not take place in a single step but sequentially in an evolutionary, constructive process in which at each step there must be a concurrence of a complex of factors. Although there may be alternative pathways in this evolution, there are more dead-ends (points at which the chemical process may be aborted because of some missing or obtrusive factor) than there are successful paths to the goal. The chemist who attempts an artificial synthesis of such a compound must reproduce such a successful sequence of situations and events. [16]

This seems to be a sufficient answer to the question of how a new molecule can emerge out of materials less well organized without violating the principle of causality by asserting that a " greater has come from the less." The materials themselves are not the originating cause of the new system. The originating and proportionate cause is the energy of activation. This energy is nothing other than the recognized fundamental cosmic forces (gravitation, electromagnetism, and derivatives such as heat, pressure, etc.). No new fundamental force is required. However, these forces do not exist in a generic condition, but as specified by the situation in which they act and by the sequence of such actions. A new molecule can emerge only out of a highly

A Modern Introduction (Academic Press: N.Y., 1966), c. 11 and 12, pp. ff. for a description of the molecule as it is now understood.

[16] See the description of R. B. Woodward's synthesis of chlorophyll in Walter Lwowski, "The Synthesis of Chlorophyll" in L. P. Vernon and G. R. Seely, *The Chlorophylls* (Academic Press: N.Y., 1966), pp.

ordered situation undergoing a highly ordered sequential process against the general entropic trend. The information or patterning or negentropy contained in this ordered sequence is proportionate to the information built into the new molecule. The ordered sequence of ordered situations is equal to, not greater than, the emergent system we call a molecule.

BIOLOGICAL EvoLuTION

The passage from non-living molecules to living organisms (abiogenesis) is still a field of conjecture, but a key to the mystery is the discovery that the development of an organism and its power of reproduction is rooted in the nucleo-protein molecule DNA which by its variations provides a "genetic code" that determines the individual organism's structure and makes it possible to pass this inheritance on to its descendants. It is recognized, however, that the DNA molecule is not itself an organism, nor can it function except as part of an organism, usually within the chromosomes contained in a cell nucleus. Consequently, the origin of life was not merely the emergence of DNA macromolecules but of simple organisms containing such molecules as a principal feature of a complete living system. [17]

Theories of abiogenesis do not rely on some special " vital force " to explain the emergence of living organisms. Instead they try to reconstruct imaginatively a sequence of situations

[17] See Harold F. Blum, "On the Origin and Evolution of Living Machines," *American Scientist,* 49 (Dec. 1961), 474-501. Also Richard M. Lemmon, "Chemical Evolution," *Chemical Reviews* 70, 95 (1970), pp. 95-109, who says "The principal ideas of how this (origin of life) took place are the 'coacervate' theory of Oparin and the ' microsphere ' concept of Fox. Both of these ideas ... are based on the notion that the emergence of life is the inevitable outcome of the associational and organizational forces inherent in the macromolecule's chemistry." (p. 108) This " inevitable outcome," however, only means that no new forces are required, provided that these forces are specified by the necessary sequences of situations and events which Oparin and Fox posit. Blum (ibid.) argues that the limiting conditions of life are stricter than many scientists realize, and the rare events required are numerous. Consequently, we should not be so sanguine about life elsewhere in the universe. He calls it perhaps a "tenuous possibility."

and events in which the necessary free energy, and the suitable mixture, orientation, conditions of temperature, etc., would be present to build up step by step the structures of a simple organism containing DNA. In particular it is necessary to imagine the formation of some kind of membranes by which the interior of the organism could be separated from the environment while permitting the controlled in-put and out-put in relation to the environment required to maintain the dynamic equilibrium characteristic of living things.[18] The organism is not a closed system but a steady-state system in which the tendency to maximum entropy is constantly compensated by a controlled influx of energy.

Since at any point in the sequence of steps that produced the first living organisms the process might have been aborted, it is necessary to reconstruct a plausible history of the origin of life. At the present time "spontaneous generation" does not take place, so that the hypothetical situation for abiogenesis is not now observable. However, without any gross violation of probability, such a situation in the early history of our planet can be posited. Furthermore, it is already possible to reproduce some phases of this process in the laboratory, so that there is hope that some day we will be able to synthesize living organisms out of nonliving materials. The amount of information required to do this, however, will be enormous.[19]

Once the first living organisms had emerged, biological evolution, " the origin of species," began; and for this we now

[18] " The DNA is not an autonomous part of the cell; it is not the "secret of life," but, as Barry Commoner persuasively argues, rather "life is the secret of DNA." It is the whole cell which is alive. And it is only the whole cell which is the minimal structure so far clearly recoguized as being capable of carrying on living activities." From an unpublished paper of my colleague A. S. Moraczewski, "Is Viral Republication a form of Biological Reproduction?" (1969) quoting B. Commoner, *American Scientist,* 52:365 (1964).

[19] Melvin Calvin, "Chemical Evolution and the Origin of Life," *American Scientist,* 44 (July, 1956), 248-263, says "Although every one of the processes that I have described is probable--there is no great improbable event that is required-the selection amongst the random probable events of a particular sequence is a highly improbable thing and has required the billion years or so that it took to do it."

have a highly developed and very plausible theory, backed up by extensive paleontological, genetic, and other evidence.[20]

It is commonly admitted today, as Mayr has shown[21] that a biological species is not merely a taxonomic convenience but a natural system which at any given time is sharply discontinuous with other species. This discontinuity is not only morphological (as in the case of the chemical species) but also functional. A species is an inter-breeding population absolutely or relatively isolated from other populations in the process of reproduction. In the course of time a species may (1) become extinct; (2) merge with another species from which it is only *relatively* isolated in reproduction, forming a hybrid species; (3) break up into two or more new species by the accumulation of genetic mutations reinforced by a period of geographic isolation or some other mechanism by which the divergence is permitted to proceed to the point that the two or more populations can no longer interbreed even when in contact.

Current theories of biological evolution do not propose a single evolutionary force or law nor suppose any inherent tendency in a species to evolve. In fact, many species are remarkably enduring. As Deeley, following Waddington, has analyzed neo-Darwinism, this theory views evolution as due to the interaction of several types of inter-related factors. It is not the individual that evolves but the species, and the species evolves not from some inner teleology but through interaction with the environment *(natural selection).* This environment is an *ecosystem* composed not only of geography and climate but also of other living things in mutual competition and symbiosis.

•• For a careful analysis of the different kinds of convergent evidence for biological evolution see Raymond J. Nogar, *The Wisdom of Evolution* (Doubleday: N.Y.), 1963.

[21] E. Mayr, *Animal Species and Evolution* (Harvard University Press: Cambridge, Mass.), 1963.

•• John N. Deeley, *The Philosophical Dimensions of the Origin of Species,* Institute for Philosophical Research (Chicago, 1969), pp. 96-111, referring to C. H. Waddington, " Evolutionary Adaptation " in *The Evolution of Life,* Sol Tax ed. (University of Chicago Press: Chicago, 1960), vol. I, pp. 381-4W and *The Ethical Animal* (Atheneum: N.Y., 1961), pp. 84-100.

The ecosystem itself is under pressure from the nuclear and chemical evolution of the earth and the whole solar system. Thus the energy which produces biological evolution has its source in chemical and nuclear evolution and can be traced in large part to events within the sun.[23] Nevertheless, evolution cannot be understood merely as an increase or decrease of total available energy but only in terms of the way this energy is applied in a sequence of extremely complex situations and events on the earth's surface.

Deeley, ingeniously using the classical four "causes" of Aristotle to show the intimate interrelation of these factors *(causae sunt invicem causae)*, summarizes them as follows:[24]

(I) *epigenetic factors:* the tendency of interbreeding population to reproduce itself in a stable manner and increase in numbers ("formal causality," i.e., the maintenance of type).
genetic factor: the tendency to variation resulting from constant small random mutations in the genetic code (" material causality," i. e., a variety of differing individuals within a species capable of transmitting their differences).

(3) *selective factor:* natural selection by the environment which eliminates those variants which are less effective in reproducing their kind (" efficient causality," i.e., the agent determining in which direction species-change will take place).

(4) *exploitative factor:* the flexibility of living things by which they are able to occupy new niches in the changing environment ("final causality," i. e., a feed-back mechanism which guides the selective process toward a *new* type which can exploit new environmental possibilities).

It is the directive bias of the selective and exploitative factors which biologists now believe is responsible for the *progressive,* apparently teleological, character of evolution. In spite of the many dead ends, the interaction of all these factors results not only in the increasing adaptation of each species to its environ-

•• For a detailed account of the exchanges of energy involved in biological evolution see Albert L. Lehninger, *Bioenergetics: The molecular bases of biological energy transformation* (W. A. Benjamin: N.Y., 1965).

.. *Op. cit.,* p. 105 sq.

ment but also in the direction of organisms which are more and more complex, highly integrated, and *relatively independent of their environment.* Higher organisms have an" internalized environment." For example, mammals are able to maintain a constant internal temperature which makes it possible for them to remain active in heat or cold that compel reptiles to lie dormant.

The culmination of this tendency to internalize the environment is found in man. By his intelligence man is able to survey his environment and to control it to a remarkable degree. Our man-made air-conditioning systems are an example of this humanization of the environment. It is most clearly seen in the wonderful development of the human brain as an organ which receives a maximum of information from outside, processes it extensively, and uses it to control and manipulate the body and the total environment.

Another way to put this is that the " best adaptation to the environment is for an organism to become *adaptable* to changes in the environment," and the capacity to learn and to invent new ways of behavior is the highest form of adaptability. [25]

Certainly in this sense the evolution of man seems to be a " greater coming from the less," i. e., a highly adaptable animal originating from less adaptable organisms. However, it should be noted at once that this progressive tendency of evolution culminating in man is not uni-directional.

It does not result in a perfect *hierarchy* of forms in which the higher contains all that is in the lower forms. Thus, the autotrophic species (green plants) and the heterotrophic species (animals) are mutually dependent on each other. Animals could not live unless plants produced food by photosynthesis of which the animals are incapable, nor could most plants live without the supply of carbon-dioxide produced by animals. The plant kingdom and the animal kingdom are superior to each

•• For a striking discussion of " adaptability as an adaptation " see George G. Simpson, C. S. Pittenrigh, and L. H. Tiffany, *Life: An Introduction to Biology* (Harcourt Brace: N.Y., 1957), c. 18 "The Evolution of Adaptation," pp. 488-458.

other in different respects, so that it is impossible to classify them in an absolute hierarchy of forms. Similarly, insects are a culmination of a line of evolutionary progress different from the parallel line which culminates in man. Thus, although there is a general progress in a vertical hierarchy of forms, it is overlaid and complicated by a horizontal or coordinate tendency by which each new level of organization spreads out and occupies all available environmental niches. The air is a niche which has been successively occupied by flying organisms belonging to very different generic levels of organization. There are flying fishes, reptiles, birds, and mammals, and also non-flying species at each of these same levels. Aristotle, the "father of biology," was already aware that living things cannot be fitted into any simple hierarchy of dichotomous forms.[26]

The sense in which evolution produces the greater from the less is with regard to *generic* not specific levels of organization.[27] When the evolutionary trees provided by paleontology are drawn, the fact of horizontal branching does not eliminate the fact that there is also a vertical dimension of increasingly elabor-

[26] "It is impossible then to reach any of the ultimate animal forms by dichotomous division." *Parts of Animals*, I, c. 3, 644a 9. See cc. and S, *5* following for his reasons.

[27] This seems to be the basic difficulty with the well-known argument of Mortimer Adler (recently utilized by John N. Deeley, *op. cit.*, C. VIII, pp. that an Aristotelian-Thomistic metaphysics requires that there be only five species of material beings, i.e., man, animal, plant, compound, element. Adler began with the Aristotelian dictum that "essences are like the integers." The integers form a perfect hierarchy in which a number totally contains all lesser numbers. Consequently, if we know the definition of man (i.e., a rational, sentient, living, compound, material substance), we know all the species less than man. But, at least in a Thomistic interpretation, Aristotle's dictum must be understood to apply to the hierarchy of existing beings only analogously, both because of the potentiality of matter and the potentiality of essence, from which mathematics and the mathematical concept of number abstract. Hence, Aquinas holds that only God, as the infinite *Ens a Se*, contains *all* the perfections of lesser beings, even to their specific differentiae. Among creatures the hierarchy is imperfect, so that the higher only contain the *generic* perfections of their inferiors. The potentiality of creatures make them finite, and finite being cannot contain "opposed perfections." Only in God is there a total *coincidentia oppositorum.* See *Summa Theologiae* I, q. *55*, a. 1 ad 3.

ate and integrated organization. Nor is there any reasonable doubt that man, with his remarkable brain, marks a level of organization higher than any other, since no other organism is so perfectly the master of its environment.

Now if we ask how this "greater" comes from the "less," modern evolutionary theory gives a clear answer. The proportionate cause of the emergence of new types or organisms of increasingly complex organization and independence of the environment is not any single law or force but a concurrence of many causes in an evolutionary *event,* or better, a *history.* A population of interbreeding organisms interacts with the ecosystem of which it is a part so as to evolve and differentiate into new reproductively isolated species, each of which develops an integrated type adapted to a special environmental niche, clearly distinguished from other populations for many generations.

Thus nuclear, chemical, and biological evolution, although involving very different kinds of events, have this in common: atom, molecule, and organism are products of historical events no less complex and sequentially ordered than the entities which they produce. The new species is not a " greater emerging from the less," because the amount of information it contains in *integrated* form is no greater than the amount of information present in the historical evolutionary process. What is spread out in history is condensed, as it were, in the emerging new species. Sartre's saying that " man is his history " was not intended to express the truth of evolution, but it does. I am reminded of Mozart's famous remark that he could hear one of his compositions " all at once."

PsYcHo-SociAL EvoLUTION

The human organism exists in an interbreeding population, the human species, but this species is *social* in a special sense not found in other animals, at least in a developed form. This species lives by *communication through a true language,* i. e., one in which signs stand for universal, reflexive concepts. **Fur-**

thermore, it is social in the sense that it develops a *culture* which transcends determined or instinctual patterns of behavior and includes *inventions* which are transmitted for many generations not genetically but by acculturation and education. This power of communication and invention which rests on an internal and external language, and hence is a power of dealing with the environment, with other human beings, and with one's own behavior through symbols, we call human intelligence. It is the mode of operation of the human organism as a whole, but it is centered in the principle organ, the human brain. [28]

Science is now attempting to understand the human brain on the analogy of an electronic computor, i. e., as a device for storing and retrieving information, ordering this information in new combinations, and regulating or correcting its own programmed behavior. [29] The computor, however, is not a living organism, and if man is to produce a " machine that thinks," it would seem that he must first produce a living machine and then develop it to the point that it can think. It is entirely possible, as far as we can see, that someday man will synthesize human, thinking beings out of non-living chemicals,[30] but to

[28] For an extensive analysis of the present state of this question see Mortimer J. Adler, *The Difference of Man and the Difference it Makes* (Holt, Rhinehart, Winston: N.Y.), 1967, esp. c. 8, "The Pivotal Fact: Human Speech," p. ff. Also see Charles F. Hockett and Robert Ascher, " The Human Revolution," *Current Anthropology*, 5:3 (June, 1964), pp. 135-168. This does not preclude the possibility of the foreshadowing of language among non-human primates on which much study is now being done, see R. A. Gardner and B. T. Gardner, and D. Premock, "Language in Primates," *Science*, 165: 664 (1969).

[29] See W. Ross Ashby, *Design for a Brain* (Chapman and Hall: London, John Wiley and Sons: N.Y., 1960; ed.).

[30] See Neil P. Hurley, "The Coming of the Humanoids," *Commonweal*, 91:10 (Dec. 5, 1969), pp. who quotes the anthology ed. by William F. Nolan, *The Pseudo-People*, as saying "The birth of the first android, therefore is a lot closer to us than we might imagine. Artificial hearts, lungs and arteries are already being developed in science; the artificial brain is the next major step toward the creation of humanized robots." More seriously C. F. von Weizacker, the *Relevance of Science: Creation and Cosmogony* (Harper and Row: N.Y., 1964): "It is an ancient dream to make a human being. I do not see that our present knowledge proves that this is impossible. Probably, if we could build a man, it would be a horrible thing really to do it. It might be the final sacrilege, and its consequences

do this we must have all the information contained in the organization of the brain and that presupposes thorough understanding of the lower life processes as well.

If it is possible for man to know himself so perfectly that he even understands the working of the brain by which he thinks and the process of thought itself, then this implies that human intelligence is a capacity for total reflexivity. To make ourselves, we must know to the very core just how we are constituted. All the information which is built into us by evolution in physical form must also be present in us in psychic or symbolic form, so that we can then use these symbols to reconstruct a physical man. It is this transformation of information from the physical to the *intentional* mode which is the body-mind polarity. [81]

The evolution of human culture can be viewed as a process by which the human community is tending to this total, reflexive, and constructive self-knowledge. Cultural anthropology and world history have shown how man has step by step developed the symbolic systems and technological skills by which he has learned more and more to control his environment. Each step in discovering the nature of our environment has also meant a step in increased self-understanding, since the human species has evolved through the struggle with its environment. This is Teilhard de Chardin's "hominization" process. Man has moved from a self-understanding through metaphorical language (myths), through an understanding in terms of universal concepts (classical philosophy), to our efforts to understand ourselves in a scientific manner by reconstructing the course of evolution. Further, it seems likely that we are moving into a fourth period in which the reductionistic and rationalistic

might be disastrous. Perhaps we are rightly afraid of it, and our fear takes the form of the belief that it is impossible. I think many of our beliefs are disguised fears. But the reason might just be that what you need to make a man is history; perhaps it cannot be done in less than four thousand million years," p. 140.

[31] The notion of *intentionality* is common to many philosophies of mind. See Henry B. Veach, "Minds: What and Where in the World are They?" in Jordan M. Scher, ed., *Theories of the Mind* (The Free Press: N.Y., 1962), pp. 814-829.

restrictions of knowledge which have predominated during the scientific epoch will yield to a more integrated view of the world in which the complementarity of different modes of knowledge is accepted. Among other indications of this new stage of human thinking is the recognition by philosophers of science that science itself is a creative, humanistic mode of thought, not pure objectivity. Perhaps the term "creative" best describes this fourth phase of human self-understanding. [82]

Human intelligence, therefore, includes and transcends chemical and biological evolution in that man comes to understand and control evolution in a creative way by processes that are not only physical but first of all symbolic. Man's behavior is penetrated by *intentionality.* It is here that his creativity resides, since once he understands nature he is not only able to reproduce it but to re-create it, to introduce genuine, freely chosen novelty into the world.

The possibility of this intelligent, organic life originated among arboreal primate mammals who had a highly developed, internalized environment, an excellent nervous system with good vision and hearing, and who had an erect posture that freed the upper limbs, making for great mobility and capacity easily to survey and manipulate the environment and to communicate through gestures and vocal signs. Most important of all, such primates lived socially in a cultural rather than an instinctive insect-like society. [33]

It is thought that in Africa arboreal apes were forced to the ground by environmental changes and began to communicate

•• Comte's three-fold scheme of the development of human thought: the theological, the philosophical, and the scientific seems to have survived as one of the best ways of summarizing the development of human-thought modes, but we now tend to see it as *cumulative* not as an evolution in which later modes render the earlier obsolete. This understanding is itself an indication that we are moving in a fourth epoch. The developments in the philosophy of science referred to are stated brilliantly in a popular article by Paul Feyerabend, " Experts in a Free Society," *The Critic* (Nov.-Dec., 1970), pp. 59-69.

•• See Hockett and Ascher, *op. cit.* and V. Reynolds, *The Apes* (E. P. Dutton and Co.: N.Y., 1967), pp. 106 ff. Reynolds thinks an important element in social behavior was " festival gatherings " which have been observed among apes.

by true speech. It is probable that this true speech and the symbolic, social mode of behavior which it implied proved of such survival value even when these capacities were still very rudimentary that natural-selection pressure worked in favor of the rapid evolution of the large brain which makes it possible for *homo sapiens* to turn his environment into a culture. [34]

Thus, if we attempt to reconstruct the situation in which man emerged it is not sufficient merely to posit biological evolution operating in the sort of situations which explain the origin of sub-human species. It is necessary also to posit in the ecosystem factors which account for *symbolic behavior.* Unless proto-man began to act symbolically by some type of true language, it was not possible for natural-selection to begin to shape him in the direction of *homo sapiens.* It seems established that a human infant cannot develop speech or humanly intelligent behavior except in an environment which includes symbolic behavior. Does it not then seem difficult to imagine how the first men began to speak in a situation where symbols, intentionality, were not a part of the ecosystem in which he lived? [85]

It is necessary to suppose, therefore, that the first men originated in a situation which was more than a biological "environment" because it already had the character of a rudi-

•• Hockett and Ascher, *op. cit.* argue that rudimentary but true speech may have been possible when the brain was still close to the level of present non-human primates, and this seems supported by Gardner, Gardner, and Premock, *op. cit.* There are a great variety of current theories on the development of tool-making and speech, e. g., Grover Krantz, "Brain Size and Hunting Ability in Earliest Man," *Current Anthropology,* Vol. 9, *5* (Dec. 1968), pp. 450-51 argues that man's hairlessness and large brain is the result of *persistent hunting* because to pursue an animal for a long time man must be able to keep cool while running and to remember what he is chasing. See also the variety of opinions expressed in the discussion of Donald L. Wolberg, "The Hypothesized Osteodontokratic Culture of the Australopithicinae," *ibid.,* 11: 1 (Feb. 1970), pp. 23-27, and the discussion by John Lewis and Bernard Towns, *Naked Ape or Homo Sapiens: A reply to Desmond Morris* (Garnstone Press: London, 1969).

[35] On the steps from primate to human use of signals see John E. Pfeiffer, *The Emergence of Man* (Harper and Row: N.Y., 1969), C. 19, "The Evolution of Language," pp. 392-414.

mentary " culture." This means that it included features which in relation to proto-man were capable of functioning as *signs,* symbols, physical bearers of intentionality. It is here that modem child psychology is of help as it begins to unravel the ways in which the child develops as a person in a world of meanings which require symbolic expression, although the child is at first aware only of physical sensations. Somehow these sensations *perceived in a social context* act as symbols through which the child communicates with others and develops a self-understanding and personal identity as he gradually learns to speak. The original sensations are only at the biological level, but they gradually acquire intentionality and become symbols.[36]

Man must have emerged in a social setting in which speech and thought were somehow already pre-contained. Today a child originates in a culture in which the necessary information for his thought is pre-contained in the artifacts of the culture, with its verbal and non-verbal symbolism. This culture is gradually internalized by the child by a process of acculturation or " education." Therefore, the event out of which man arose must have been already a "meaning-full" event, so that the environment appeared to man as a "world" (in the sense of that term used by phenomenology) ,0[7] as something filled with

[86] On current views as to how children learn to speak see Hermina Sinclair-de-Zwart, "Developmental Psycholinguistic" in David Elkund and John H. Flavell, eds., *Studies in Cognitive Development: Essays in Honor of Jean Piaget* (Oxford University Press: N.Y., 1969), pp. 315-336. Piaget and his followers insist that a child first learns to think and then to talk. He learns to think by exploring and interacting with the environment, first learning to recognize the continuity and permanence of objects and then to " know that he knows " these objects. Only then is he ready to name and talk about them. Also Heinz Werner and Bernard Kaplan, *Symbol Formations An Organismic Developmental Approach to Language and the Expression of Thought* (Clark University: John Wiley and Sons, N.Y., 1963), which emphasizes that language does not originate in merely pragmatic activities of the child but in cognitive ones (see esp. the analysis of Helen Keller's experience on p. 110 ff.) and requires the social experience of "sharing" a common interest in objects, pp. 71 ff.

[87] On meaning of term " world " in phenomenology see William A. Luijpen, 0. S. A., *Existential Phenomenology* (Duquesne University Press; E. Nauwelaerts: Louvain, 1960), pp. 15-33.

wonder and meaning, not as an assemblage of brute facts or mere " stimuli." This world communicated something to man, as it continues to do, although this meaning remains ever perilously balanced on the knife-edge of ambiguity. The existentialists who today declare the universe to be absurd are saying in effect that the waves of entropic doom are eating away at the foundations of the livable world in which man can feel "at home." Man's effort to find meaning in the world and to express it in words seems ever about to be engulfed by the rising tide of random noise. " Life is a tale told by an idiot, full of sound and fury, signifying nothing .... "

THE UNIVERSAL AND THE INDIVIDUAL

At this point it is necessary to raise a very old question, that of realism and nominalism. When we discuss novelty and emergence, are we speaking of a species or of an individual? Darwin's great book was called *The Origin of Species,* but obviously what originates and is genuinely new and unique in the world is always an individual. When novelty has spread to many instances it is already losing its freshness.

It is true that for the biologist the problem of evolution is the origin of a new inter-breeding population reproductively isolated from others. For the cultural anthropologist what emerges is new functionally integrated cultures. Even at the molecular and atomic level there is a real sense in which there are "species," since not only is there a quantitative identity of composition and structure between all H20 molecules, or all silver atoms, but there is also a tendency of like atoms or molecules to form homogeneous crystals or liquids. Yet even in these collective realities in which all the members are very much alike, there is also a genuine uniqueness and novelty in the individual.

Some have imagined that every electron was the same as every other electron except for its spatio-temporal location. However, the fact that the behavior of sub-atomic entities can be predicted only by *statistical laws* seems to indicate that these

entities cannot be perfectly described by a general definition.[88] The existence of isotopes among the elements and the complexity of molecular structures also indicate that the periodic table of the elements and the chemical formulae of compounds is only a rough classification of the vast variety of chemical entities, so that no two atoms or two molecules need be thought of as absolutely identical in structure. Once the organic level is reached, no two individuals within the same species are found to have identical genetic composition. Even" identical twins" perhaps differ in the cystoplasmic genes which are at least a secondary factor in the development of the individual.[39] At the psycho-social level we see that not only are cultures in a constant state of development and interchange, but that a culture has power to survive and progress to the degree that it helps each individual member achieve a unique personal identity and a power of creative invention.[40] The direction of evolution, therefore, is toward the emergence of unique persons. If men achieve self-understanding, so that each individual feels that he must " make himself," then each human person will become a work of fine art, and like such works, will be unique.

What then becomes of the classical distinction which underlies all Western philosophy between *essence* and *accident?*

[88] See the discussion of the statistical nature of quantum-mechanics in Ernest Nagel, *The Structure of Science* (Harcourt Brace and World, Inc.: N.Y., 1961), pp. 805 ff. For macroscopic events there are universal deterministic laws, but these reflect the cancelling out of irregularities in sub-atomic events which are governed only by statistical laws. Nagel shows that these *statistical* laws do not reflect a breach of the principle of causality at the sub-atomic level but simply the fact that we can only observe and predict the behavior of aggregates, not of individual particles.

[39] See Amram Scheinfeld, *Twins and Supertwins* (J. P. Lippincott: Philadelphia, 1967) and Helen L. Koch, *Twins and Twin Relations* (University of Chicago, 1966), which show that although identical twins as they mature grow more alike physically, they are capable of fully distinct personality.

[40] See Charles A. Moore and Aldyth U. Morris, eds., *The Status of the Individual in East and West* (University of Hawaii Press: Honolulu, 1960), a symposium in which noted philosophers of all the great world traditions struggle with the question of the dignity of the individual person and seem to agree that all these traditions converge in an attempt to establish the free, conscious, responsible individual.

Must we finally accept nominalism? Nominalism took from Aristotle the conviction that nothing is real but the individual. It also took from him the axiom that " science is of the universal." It then drew the conclusion that science, (i.e., essential knowledge of reality) is impossible, hence science is an affair of names designating a collection of accidents and not of essential natures.

In the evolutionary perspective a different possibility emerges. " Science " for Aristotle was a matter of universal knowledge, because our knowledge of the essence of things is possible only by abstraction or generalization. He did not deny, however, that individuals do in fact have unique essences but only that an intellectual knowledge of this uniqueness is possible for us.[41] Now we begin to see that the theory of evolution provides us with a way to understand the uniqueness of the individual in an essential manner. Aquinas, basing himself on Aristotelian principles, held that God, because he made each unique thing, has an essential understanding of the individuaJ.[42] Evolutionary theory aims at achieving such a practical knowledge of the individual that we can say what information was required to produce this unique organism, beast or man.

This explains also why modern science does not insist, as Aristotle did, that scientific knowledge should be "certain and necessary." Our reconstruction of the history of an individual can never be perfect, and hence modern science, which seeks to know the individual through evolutionary process, is always conjectural, probable. Yet this does not mean that everything we know about an individual is only probable.[43] There is no

[41] *Posterior Analytics,* I, 31, 87b 27 sq.

[42] *Summa Theologiae,* I, q. 14 a. 11. Aquinas argues that "it pertains to our (human) perfection to know the singular," hence God must also; but while man knows the singular by a knowledge which is partly of intellect, partly of sense, God knows the singular by a purely intellectual knowledge. Aquinas further argues th,at, since God produces the creature in its totality, including the matter by which it is individuated, he must know it is individual.

[43] Nothing is more generally accepted by modern science than that all scientific knowledge is only probable, which usually ends by saying that *all* knowledge is only probable. Thus " the historical development of physics led to the result that

real doubt that this organism named Mr. Jones, my neighbor, is a human being and not a chimpanzee. Or that this liquid is water and not sulphuric acid. The hypothetico-deductive mode of thinking came to dominate science precisely when it became apparent that to understand the solar-system in which we live it is necessary to look beyond pure universal laws to the contingent situation, i. e., that the solar system is made up of these particular planets with these particular orbits and velocities, none of which is predictable from any general law but only from the history of the solar system. It then became apparent that the universal law of gravitation can be verified only by assuming particular, historic situations. [44] There is never any problem in discovering universal laws of nature, i.e., which might be true in some hypothetical universe. The problem is always to know what laws are operative in our universe and that universe is the production of an evolutionary history. We can, however, formulate a universal law of gravitation, and we

the probability concept is fundamental to all statements about reality. Strictly speaking, we cannot make a single statement about reality the validity of which can be asserted with more than probability." Hans Reichenbach, *The Theory of Probability* (University of California Press: Berkeley, 1949). This view rests on the notion that certitude is a property of analytic propositions, while synthetic propositions (the only ones that concern "reality") are verified by induction (or prediction) which can never yield universal and necessary truth. To this it can be replied: (1) there are alternatives to the positivistic epistemology of science; (2) it is a *reductio ad absurdum* to say that no statement about reality is certain, because then no statement could be probable either, since *determinate* probability implies some certitudes as Bertrand Russell showed in *Human Knowledge* (Allen and Unwin: London, 1948), p. 416; see the discussion of Reichenbach, C. L. Lewis, and Nelson Goodman in *The Philosophical Review*, 61, 2 (April, 1952), pp. 147-175. Nelson gives the best argument again Russell, stating "That we have probable knowledge then, implies no certainty but only initial credibility." (p. 163) However, this merely pushes the difficulty back to the basis of credibility. How is a thing credible unless it at least has some determinate probability? Michael Polyani, *Personal Knowledge* (Harper Torch books, Harper and Row: N.Y., 1962), C. 9, pp. 269-298, "The Critique of Doubt " shows that the fear of certitude is not even a good heuristic principle for the sciences.

«Thus Newtonian science seemed to give a wonderfully adequate account of the solar system, but it was soon realized that in fact this explanation presupposed a *history*. Hence, Kant and others began to attempt to reconstruct this history in the form of the "nebular hypothesis."

can even be certain that this law is *somehow* operative in our actual universe, but there is always a range of uncertainty when we come to say just how this law is operative in our world, because our knowledge of the world situation in its historic development remains always imperfect. The world itself is essentially imperfect just because it is in historical process.

Does this mean that the essence-accident distinction, or the notion of a species, a universal essence, is finally eliminated? No, because there still remains an important sense in which all human beings have a common" human nature," but we must understand this abstraction as having its foundation in the real inter-relation and inter-action between unique individuals. Their uniqueness is not " accidental " to this community but essential.[45] Among human beings community in nature is found not so much in mere similarity of structure and faculty as in the mutual inter-communication which makes it possible for them to share a common culture. Similarly, on lower levels, species is to be found more in common process than in identity of structure or potentiality. Animals form a single species because they inter-breed. Perhaps we could say that molecules and atoms are the same species because they can form crystals. In each case the individual brings to this interaction its uniqueness, and it is this unique contribution which is of the utmost significance. In human society it is the individual personality which makes for flexibility and progressive change. In biological evolution it is the mutation and the novel combination of genetic factors in the individual that makes progress possible. Even in chemical evolution chemical process begins with some unique encounter of particles in which a crystal begins to form or a reaction begins to take place in a determinate direction.

Furthermore, in the unique individual there remains a real difference between what is essential and what is accidental. The

•• Aquinas touched on this when he insisted that God could never have made any two things in the universe exactly alike, since mere repetition adds nothing to the perfection of the universe. On this see Charles De Koninck, " In Defense of St. Thomas," *Laval Theologique et Philosophique,* 1:*!'l* (1945), pp. I. 103, pp. *25* fl'.

essence is that structure and fundamental set of activities which provide the individual with a stable identity and continuity. This identity is, of course, not eternal, but it persists through many states, conditions, situations which modify it in its relation to other things without destroying it. Finally, without a doubt, we can distinguish in the thing between its essence and its " properties," since there is an empirical difference in a thing between its primary structures and functions and those that are secondary.[46] Thus, in an animal the brain and heart are essential organs and metabolism an essential function for its survival in a way that its limbs or its power to digest are not, yet all are necessary to its integrity, full function, and survival.

NATURE AND HISTORY

I have emphasized this shift from a science of the universal to an evolutionary science of individuals, because it entails a shift from a science of " nature " to a science of " history," the significance of which, it seems to me, scientists themselves have not fully realized. For the classical tradition science deals with nature, which is to be understood in terms of universal *natural laws,* while history deals with the accidental and is incapable of real scientific understanding.[47]

In an evolutionary scheme, however, the " nature " of reality is profoundly historical. Nature is the history of the emergence and disappearance of unique individuals. They originate in unique events, participate in unique events, and then are destroyed in the entropic flood which finally overwhelms all that is unique and distinctive. There are as many unique " natures " as there are unique individuals. Nevertheless, these individuals

•• The point is often missed that when Aristotle spoke of essence, properties, and accidents, he had in mind a method of definition based on the empirical study of primary and secondary functions in an organism. See *De Partibus Animalium,* which is the best exemplification of what the logical doctrine of the *Posterior Analytics* meant in actual application.

07 For a discussion of the way in which the concept of "nature " tends to give way to the concept of "history" in modern thought see, R. G. Collingwood, *The Idea of Nature* (Oxford, 1945), pp. 174-177.

are grouped into interacting collectivities of similar things (an inter-breeding population, for example) and have originated in similar events. Knowledge of the individual is possible by the reconstruction of the historic happenings from which they have emerged in terms of the concurrence of " general laws " which are expressive of the fundamental cosmic forces of gravitation, electromagnetism, etc. Each of these historic events is seen also as embodying past history which has prepared the new event in an evolutionary manner by which the past is partially built into the present. The " information " required to produce each unique individual and which gets built into its essential structure is contained, spread out as it were, in all the lines of history that converge in the creative event out of which that individual emerges to play a role in further historic happenings.

THE GREATER FROM THE LEss: 11m NEW FROM THE OLD

The foregoing analysis has attempted to establish two points: (1) Evolution in all its phases requires no other *forces* in the nature than the fundamental cosmic forces of gravitation, electromagnetism, and the nuclear forces. (2) The specification of these general forces necessary to explain how they can produce new and ever more complex systems can be accounted for not in terms of special natural laws but in terms of history, of the concurrence of forces in special situations and in appropriate sequence. Consequently, evolution does not contradict the principle of causality, since when new things emerge, the matter, the energy, and most important, the *information* necessary to build them are all accounted for in a satisfactory way by current scientific theories. Even the emergence of men as *spiritual* beings, that is, capable of intuition, speech, choice, invention all rooted in symbolic behavior, can be explained in these terms, if we can historically account for a situation in which man began to be aware of meaning in the world, as a child begins to understand language. [48]

•• The papal magisterium (notably Pius XII in *Humani Generis* and E. Dhanis, S. J., and Jan Visser, C. SS. R., *The Supplement to a New Catechism* [Herder

However, this way of understanding evolution raises a deeper question: how do we explain *history?* We cannot have recourse only to universal natural laws, since what above all requires to be explained is precisely the element of novelty and uniqueness by which history transcends the regular, stable pattern of events which natural law summarizes. History presupposes and includes natural and universal laws and does not violate them, but it is not deducible from them. Yet, the existence of evolutionary processes is empirical evidence that history is not without intelligibility.

The truth is that historical explanation is inevitably *mythical* in character.[49] By this I mean that, when we attempt to "ex-

and Herder: N. Y., 1969], p. 518, reporting the results of the papal commission which examined the "Dutch Catechism") insists on "the special creation of the human soul." As Dhanis and Visser point out, however, this by no means excludes the role of the parents (and hence of the whole evolutionary process) in the generation of the total human person as such. In any theistic view of evolution the creativity of the created agents is always a *participation* in the creative action of God. At each new state of evolution this participation takes on a new mode. In the generation of the human person the parents truly share but in a very different manner than do merely animal parents. At the same time the mode in which God creates the human person more direct and, as it were, *personal* than the manner in which he produces non-persons. The continuity of the evolutionary process is not broken by the origin of man, since evolution is from the beginning rooted in God, but it enters onto a strikingly new and special phase at this point. In the origin of man, a person, God appears on the scene, as it were, in person and directly. The Yahwist document in *Genesis* with marvelous insight, conveys this sense of God's special presence in the creation of man and woman.

For a discussion (not altogether satisfactory in my opinion) of the magisterial documents, see Robert North, S. J., *Teilhard and the Creation of the Send* (Bruce: Milwaukee, 1966), esp. cc. 7-8, pp. 204-289.

[49] I use "myth" here much as it is defined by Melville, J., and Frances S. Herskovits, in *Dahomean Narrative* (Evanston, lli., 1958), "A myth is a narrative which gives symbolic expression to a system of relationships between man and the universe in which he finds himself." (p. 81) History is a narrative obviously, and when this narrative is understood as humanly meaningful it expresses man's relationship to the world. This expression, although factual and rooted in empirical evidence, critically tested, is nevertheless "symbolic" since experienced external events are an epiphany of the inner reality of man's existence. That history is mythical does not mean that it is a regression to primitive modes of thinking but rather that it synthesizes the mythical stage of thought with philosophical and scientific modes of thinking, thereby overcoming their limitations.

plain " historical events, we can do so only by attributing to them some *meaning.* Purely " empirical " historical explanations simply come down to descriptions of the various lines of natural causality that concurred in the event, but the concurrence must either be called merely a coincidence, mere chance (and then there is no explanation) , or we must see in it some kind of importance, some kind of meaning.

For example, the assassination of a president can be empirically explained in terms of sociology, psychology, ballistics, and physiology, but these explain only why some president might be assassinated, for not a few are. It does not explain the assassination of John Kennedy rather than Lyndon B. Johnson, and it is precisely this unique event that is to be explained. Consequently, we feel compelled to make some sense out of it *mythically,* that is, by seeing in John Kennedy and his strange story something of special human meaning. Similarly, accounts of cosmic or biological evolution always are presented with the implied myth that all of this is remarkable because it has finally produced *us,* human beings capable of understanding what has happened.

Confronted with this obvious element of myth in evolutionary theory, empirical scientists are methodologically compelled to deny its importance and to insist that science stops short with tracing the various strands of causality that enter into the events of evolutionary history, without attempting to make evolution as such intelligible. In such a picture it appears simply as the back-eddy of the entropic decline of the universe.

The myth appropriate to evolutionary theory, however, need not be that of creationism in the sense of the occasional intervention of a God conceived as another force added to the cosmic forces to reverse entropy, nor as an inherent vital force in the manner of panpsychists like Julian Huxley,[50] nor merely

•• *Religion without Revelation,* rev. ed. (Harper: N.Y., 1957), "If as is the case, mind and matter coexist in the higher animals and man; and if, as is now certain, the higher animals and men are descended from lower animals, and these in turn from lifeless matter, then there seems to be no escape from the belief that all reality has both a material and a mental side, however rudimentary and below the level of anything like our consciousness that mental side may be." (p. 41)

as an Omega point drawing the universe as for Teilhard de Chardin,[51] nor as a Creator who has no power to share his creativity with others, as for Thomas Aquinas,[52] but as a recognition that the universe is a place in which creative events constantly occur as a basic feature of all natural processes, in which man's own creativity is a summation of this cosmic creativity. Undoubtedly, this myth implies a Creator, but one who shares his creativity with the world and with man in history.

BENEDICT M. AsHLEY, O. P.

The Institute of Religion
Texas Medical Center
Houston, Texas

[61] See Robert North, S. J., *op. cit.,* c. 4, "Creation as Alpha Point," pp. 83-118. "The Alpha Point (apparently Teilhard does not actually use the term) must have exhibited a millionfold more intensely that ' Complexity latent in simplicity ' which every ovum exhibits. Moreover, this Alpha Point must, like Omega, possess some special identifiability with Christ or God." (p. 116) This, in my opinion, is the weak point of Teilhard's magnificent myth; it tends to reduce the *historicity* of the universe, with its creativity, freedom, and play, to a *natural* process, the inevitable unfolding of seed (which is the Stoic idea, if the Alpha Point is the primordial chaotic matter) based on the inevitable emanation of the universe from the Logos (which is Neo-Platonism, if the Alpha Point is Christ). But modern evolutionary theory does not support this *lawful* interpretation of the phenomena of evolution.

[52] It is of course true that Aquinas denies that God can share *creatio ex nihilo* with creatures, because a created agent cannot produce without acting on pre-existing matter (cf. *Summa Theol.,* I, q. 45, a 5). But if "creation" and "creativity" are used (as common usage has it today) not in view of the material but the final cause, i.e., the novelty and uniqueness of what is produced, then even in Thomistic metaphysics God can and does share his creativity with his creatures. The shift of point of view, however, is significant. Aquinas as a philosopher saw the universe in Aristotelian terms in which history and novelty are only *secondary* features of the world; although as a Christian theologian he realized this was not the whole story. In the foregoing I have used the terms " creation " and " creativity " in the broad sense in which *creation ex nihilo* is the mode of creativity proper to God, while creatures participate in this only in their own mode as secondary causes acting to perfect the *existing* universe.

ARISTOTLE AND AQUINAS ON THE FREEDOM OF THE MATHEMATICIAN

IT IS NOT unusual to find contemporary mathematicians who claim to have an unlimited degree of freedom in their discipline. Some even maintain that they can study (at least symbolically) anything and everything. The mathematician, they say, simply posits any definitions he pleases concerning any group of symbols and relations among them, defines the operations thereupon, and then proceeds logically. Needless to say, these mathematicians do not consider themselves bound in any way to treat entities which resemble real physical things. (Indeed, they not infrequently give the impression that they have little or no concern as to whether their mathematical considerations have any application to physical reality.) Nor do they consider mathematics to be a science of abstracted quantity in the traditional sense, fearing that to assert this would needlessly restrict the range of their science.

The purpose of this essay is not to pass judgment on the claims of today's mathematicians regarding freedom in their science. I intend rather to investigate the philosophies of mathematics of two much earlier men, Aristotle and Thomas Aquinas, both of whom considered mathematics to be a science of quantity, in order to determine the degree of freedom each allowed the mathematician in his science. Specifically, I will show that the medieval theologian's doctrines contain significant advances in this area over those of his Greek predecessor. Moreover, it will be suggested that to designate mathematics as a science of quantity, as these two thinkers do, still allows for a tremendous degree of freedom on the part of the mathematician—though it is not claimed that either man envisioned, or would agree with, the degree of freedom claimed by some mathematicians today.

I. THE QUESTION

Let us begin by returning to a point just mentioned, that for both Aristotle and Aquinas mathematics is considered to be a science of quantity. Let us hasten to add, however, that the quantity studied in mathematics is, according to both thinkers, a quantity not found as such in real things but a quantity abstracted from such things. As is well known, this abstraction involves mentally setting aside all the nonquantitative attributes of things and retaining only their quantitative ones.

In his famous text of the *Metaphysics*, a text which Thomas repeats with approval in his *Commentary*, the Stagirite speaks of the mathematician "stripping away" all features of things but their quantitative attributes,

> ... the mathematician investigates abstractions (for before beginning his investigation he strips off all the sensible qualities, e. g., weight and lightness, hardness and its contrary, and also heat and cold and other sensible contrarieties, and leaves only the quantitative and continuous, sometimes in one, sometimes in two, sometimes in three dimensions, and the attributes of these *qua* quantitative and continuous, and does not consider them in any other respect, ...[1]

Of course, it is precisely because of this mental abstraction, or subtraction, that the quantities studied in mathematics are said by both men to acquire their specific features as immobile, nonsensible, free from time and place and from sensible matter, and often possess less than three dimensions.

And yet, though the features of abstract mathematical quantities and quantified things are radically different, this does not mean that these quantities are totally dissimilar; indeed, both philosophers stress that it *is* in fact the quantities of physical things that the mathematician studies. However, they add-it is not *as quantities of phyl!ical things* that they are studied. One text of Aristotle's which makes this clear is the following:

[1] *Metaphysics*, XI, 3, 106la !'l9-36. Thomas's commentary is *In XI Metaphysics*, L. 3, !'l!'lO!'l.

Obviously physical bodies contain surfaces and volumes, lines and points, and these are the subject-matter of mathematics .... Now the mathematician, though he too treats of these things, nevertheless does not treat of them as the limits of a physical body, nor does he consider the attributes indicated as the attributes of such bodies. That is why he separates them; for in thought they are separable .... [2]

Thomas Aquinas makes exactly the same point in his commentary on this passage. He affirms that the mathematician and the natural philosopher both treat the *same* things, but not in the same way.

The mathematician and the natural philosopher treat the same things, i. e., points, and lines, and surfaces, and things of this sort, but not in the same way. For the mathematician does not treat these things insofar as each of them is a boundary of a natural body, nor does he consider those things which belong to them insofar as they are the boundaries of a natural body. But this is the way in which natural science treats them .... Because the mathematician does not consider lines and points, and surfaces, and things of this sort, quantities and their accidents, insofar as they are the boundaries of a natural body, he is said to abstract from sensible and natural matter. [3]

Clearly then for both men the mathematician does treat real quantities but not as real.

And this brings us to the heart of the question of this study. If mathematical quantities are nothing more than abstracted real quantities; if they are gained simply by "stripping away " all nonquantitative attributes of things, does this mean that for Aquinas and Aristotle the mathematician is limited in his science to treating objects which in their quantitative features resemble the quantitative attributes of physical things? It is true that both men give as examples of geometrical objects rather elementary figures, circles, triangles, angles, etc., which could easily be gained by abstraction from similarly figured sensible things. [4] But does this mean that they believe that

• *Physics,* IT, 193b
• *In II Physics,* L. 3, 160-61.
• Heath points out both in *A History of Greek Mathematics* (Oxford: Clarendon

mathematics is limited to just such quantities, quantities which bear almost a one-to-one relation to real quantities? If this is the case, then clearly the freedom of the mathematician is severely restricted.

In order to answer this crucial question we will turn to a more detailed consideration of what psychologically is actually involved in mathematical abstraction according to both men. This will aid us in determining just how free each considers the mathematician to be in his act of abstraction. First, Aristotle.

II. THE FREEDOM OF THE MATHEMATICIAN ACCORDING TO ARISTOTLE

In the famous text of his *Posterior Analytics* where he describes the general procedure of obtaining the universal from sense experience [5] Aristotle refers to the presence of what he there calls "memory." Animals which have memory, he says, are able to retain sense impressions and so provide for themselves some stability in the changeable data of sense experience. Actually what Aristotle there calls memory he will later more precisely designate imagination. [6] Thus the role of imagination in all abstraction (using this term now in a wider application meaning the mental act of obtaining the universal from the sensible particular) is evident. This would mean, of course, that imagination is present in mathematical abstraction, too, for it also begins with perception of changing sensible particulars. However, and this is a point which should be emphasized, Aristotle never refers to imagination as having a particular or special part in mathematics or mathematical abstraction. [7]

Press, 1960), I, 341 and *Mathematics in Aristotle* (Oxford: Clarendon Press, 1949), p. 1, that Aristotle refers only to the most elementary geometrical figures. As for Aquinas, I can only state that in my reading of him I have found nothing that would invalidate this same conclusion.

• *Posterior Analytics,* II, 19, 99b 86-100b 1.

• *De Anima,* III, 8.

• Some authors, particularly those inclined to read Aristotle through the eyes of St. Thomas, ignore this fact. See for example, Mere St. Edouard, " La division

It may be that he simply did not develop this point, or, of course, it may be that he did not think imagination had any special role in mathematical abstraction. An elaboration of this second possibility is in order. According to the Stagirite, imagination" has the objects of sense for its object." [8] Imagination is said to be the act of a sense faculty (though just what sense faculty is not clear) [9] and is clearly distinguished from the acts of the mind, affirmation and negation, and the knowledge of incomposites. [10] But the objects of mathematics according to the Stagirite are not sensible for, as we noted, the mathematician leaves out the proper sensibles. Though his abstraction is based upon perception of the common sensibles, it is not these *qua* sensible which he studies. Since mathematical quantities are not sensible, it would apparently follow that they are not imaginable either, for, as was said, imagination is the act of a sense power, it has "the objects of sense for its objects." Mathematicals, then, would be knowable only by the mind. We might note in support of this last statement that Aristotle calls the matter of mathematicals "intelligible"; he never refers to it as " imaginable." [11]

And yet, from another point of view it would seem that this very notion of intelligible matter indicates that mathematical

aristotelicienne des sciences, selon le professeur A. Mansion," *Laval Theologique et Philosophique,* XV (1959), 228 and M-V. Leroy, "Le savoir speculatif," *Revue Thomiste,* XLVIII (1948), 808 ff. Frere Augustin-Gabriel, "Matiere intelligible et mathematique," *Laval Theologique et Philosophique,* XVII (1961), 187, admits Aristotle does not have the doctrine and says one must " read between the lines " to find it.

[8] *De Anima,* III, 8, 428b 18.

• In his *On Memory and Reminiscence,* Aristotle states that imagination is an " affection of the sensus communis." (1, 450a 12) In the *De Somnis,* on the other hand, he distinguishes between that power which is the controlling or judging sense faculty (apparently the *sensus communis)* and that which presents images (2, 460b 16-18; see also 8, 461 18-81). Furthermore, he explicitly identifies the imaginative faculty with the sensitive faculty *qua* imaginative, though he does not say what this sensitive faculty is. (1, 459a 15-16)

[10] *De Anima,* III, 8, 482a 9-14.

[11] For a discussion of Aristotle's notion of intelligible matter, consult my article "Intelligible Matter and the Objects of Mathematics in Aristotle," *The New Scholasticism,* XLTII (1969), 1-28.

quantities must be imaginable, for intelligible matter for Aristotle is viewed by him precisely as the principle of *individuation* of mathematical forms.[12] Since individuals are attained directly only by sense and not by mind which is directly of the universal/3 individual mathematicals could be grasped directly only by a sense faculty. But since the quantities studied in mathematics are not possessed of any proper sensible features, they cannot be grasped by the exterior senses. Would it, then, be imagination which grasps them? To be sure, Aristotle does speak in the *Metaphysics* of individual mathematicals as known by " intuition."

> But when we come to the composite thing, e. g., this circle, i. e., one of the singular circles, whether sensible or intelligible (I mean by intelligible circles the mathematical, and by sensible circles those of bronze, or of wood) -of these there is no definition, but they are known with the aid of intuition or of sensation; and when they pass out of this actual cognition it is not clear whether they are or not; but they are always expressed and known by the universal formula.[14]

But is this intuition imagination? Some have so interpreted it;[15] Aristotle himself does not say. This much is clear from his text; it is not an act of direct sensation, nor is it an act of mind, that which grasps the definition, the universal formula. In the absence of statements to the contrary, it is logical to presume that it is imagination which is meant.[16] Though exactly how such entities could be imaginable, in view of the fact that they lack sensible qualities, is still a question.

But if Aristotle never mentions it, why this stress on my part on imagination? The reason is, and admittedly we are

[12] *Metaphysics,* VII, 11, 1036b 35-1037a 4.

[13] *De Anima,* III, 4, distinguishes sense knowledge from intellectual. See explicitly 429b 10-33. Also see *Metaphysics,* VII, 10, 1036a 1-12 and *Posterior Analytics,* I, 31, 87b 36-40; II, 19, 100a 15-100b 1.

[14] *Metaphysics,* VII, 10, 1036a 1-8.

[15] "St. Thomas Aquinas interprets this intuition as imagination in *In Vll Metaphysics,* L. 9, 1494-95.

[16] Diego Pro, "Filosofla de la matematica en Arist6teles," *Sapientia,* XI (1956), 99, discusses Aristotle's obscurity on this point.

looking ahead to Thomas Aquinas, if individual mathematical objects have their locus in imagination, it would follow that there is a certain degree of freedom on the part of the mathematician in regard to his objects. The Stagirite himself refers in various places to the freedom men have in imagining.[17] If the locus of individual mathematicals were the imagination it would seem to follow that the mathematician would be free to deal with objects which do not closely correspond to anything found in the physical world. There would be no reason to limit him to simply studying abstracted quantities which resemble the quantities of things, but he could treat quantities which he himself had devised in imagination which have no one-to-one correspondence to any physical quantities. Indeed, an epistemological basis could be provided for the tremendous development in modern times of nonrepresentational mathematical systems such as the nonEuclidean geometries.

Now it is true, as we mentioned earlier, that the Stagirite always cites as examples of geometrical objects :figures which could easily be gained by abstraction from similarly figured sensible things. But our question is, does Aristotle in his philosophy of mathematics hold that the mathematician *must* limit himself to such easily abstractable entities? In attempting to answer this question it might be helpful to realize that it is only the most general and basic elements of the genus quantity, e. g., lines, planes, etc., that he explicitly mentions as obtained by abstraction.[18] Apparently all other mathematical objects are to be constructed out of these basic abstracted entities. No science, Aristotle says, demonstrates the very existence of the subject with which it deals.[19] The mathematician, then, apparently at first posits the existence of these most basic ele-

[17] *De Anima,* III, 8, 427b 18-20; 11, 484a 9.

[18] Thomas Greenwood, "Aristotle on Mathematical Constructibility," *Thomist,* XVII (1954), 89 and 98. The fact that these elements are so general and hence so easily abstracted may well be the reason why Aristotle says that little experience is needed in order to become a mathematician *(Nicomachean Ethics,* VI, 8, 1142a 16-19).

[19] *Posterior Analytics,* I, 10, 76b 8-28.

ments of the genus quantity gained by abstraction [20] and then through construction using these elements goes on to " demonstrate the existence" and investigate the properties of all the other objects he dectls with. (Aristotle does say that before the properties of a mathematical object can be investigated it must be *demonstrated* that that object exists.[21] The actual practice used at his time to " demonstrate " the existence of a particular mathematical quantity was to construct it.) [22] Our question is then is the mathematician free to use these basic elements to construct (and hence demonstrate the existence of) any figure he desires-any figure that is, whose very existence is not self-contradictory (like square circles)? Certainly the most basic abstracted elements, those whose existence is simply posited, are so general as to be able to form any figure or number. And yet the Stagirite never states that the mathematician has the freedom to construct these elements into any non-self-contradictory objects he pleases. In fact, it is just the opposite as we have said, the only objects of geometry he cites are those which closely resemble physical magnitudes. Could this indicate that he never thought of allowing the mathematician freedom to construct and treat objects not resembling quantified physical things? [23] On the other hand, it might be suggested that Aristotle would never have intended such a limitation of mathematics since numbers by their very nature as more abstract than magnitudes are clearly not able to be closely bound to physical quantities.

[10] *Ibid.,* 76b 8-7.

"Ibid., 76b 8-10.

•• This is pointed out by Heath, ... *Greek Mathematics,* I, 887 and 877; Greenwood, "... Mathematical Constructibility," 89-98; H. G. Apostle, *Aristotle's Philosophy of Mathematics* (Chicago: University of Chicago Press, p. Euclid, for example, always constructed a particular mathematical entity before making use of it in a demonstration; for example, only after he had constructed a square did he go on to study it; only after he had constructed a perpendicular to a straight line did he use lines at right angles to one another. Though Aristotle does not explicitly say what he means by the demonstration of the existence of a mathematical, it seems most reasonable to conclude that the Stagirite has in mind the common Greek practice of construction.

•• Greenwood, "... Mathematical Constructibility," 98-94 and "The Characters of the Aristotelian Logic," *Thomillt,* IV seems to hold this position.

In reply to this last point we must bring out some interesting features concerning the way the Greek mathematicians of Aristotle's time tended to look upon their science. In the first place, it should be pointed out that among the Greeks arithmetic *was* closely tied to geometry and to actual physical magnitudes. In general number theory was treated by them in the framework of geometry.[24] From the time of the Pythagoreans on, numbers were often represented geometrically.[25] Euclid, for example, (about a generation after Aristotle) represents numbers by straight lines, planes, squares, cubes, etc.[26] This is especially true of irrational numbers, e. g., the square root of two which could not be assigned a definite numerical value but could be represented by magnitudes.[27] Furthermore, the Greeks had no notion of imaginary numbers or of negative numbers, numbers which could hardly be said to correspond to numerical aspects of physical things. Instead, the only numbers they used were the ordinary whole numbers and ratios, 1, 8, *i*, t, etc. Interestingly enough, it is not until Diophantes (late third century A. D.) that we find any mathematical equations used which involve numbers raised to any power above three, the cube.[28] Apparently, because there is no physical

•• Heath says, " With rare exceptions ... the theory of numbers was only treated in connexion with geometry, and for that reason only the geometrical form of proof was used, whether the figures took the form of dots marking out squares, triangles, gnomons, etc. (as with the early Pythagoreans), or of straight lines (as in Euclid VII-IX) .... " (... *Greek Mathematics,* I, 16) Heath also points out that even problems which we would call algebraic were only solved geometrically by the Greeks. *(Mathematics in Aristotle,* p. 223, also ... *Greek Mathematics,* I, 379 ff. See also his explanation of "geometrical algebra," pp. 150-154.)

See also M. R. Cohen and I. E. Drabkin, *A Source Book in Greek Science* (Cambridge, 1958), p. 1 and p. 14, n. 1.

•• Heath, ... *Greek Mathematics,* I, 76 ff.

•• Heath, *ibid.,* I, 16, 98 and 379 ff.; *Mathematics in Aristotle,* p. 222.

•• The square root of two would be represented simply by drawing a square of sides one and one whose diagonal would then be the square root of two. Many authorities feel that it was the discovery of the irrational that turned the Greeks in the direction of geometry and accounted for the " geometrizing" of number. See, for example, Marshall Clagett, *Greek Science in Antiquity* (New York: Abelard-Schuman, Inc., 1955), p. 57 and Cohen and Drabkin, *op. cit.*

•• Cohen and Drabkin, *A Source Book* ... , p. 25.

magnitude which has more than three dimensions, the Greeks felt any higher power would be meaningless. The very terms they used in arithmetic, some of which are still in use today, probably show more than anything else the geometrical framework in which this study was carried on. Our terms like square (a number is squared when it is multiplied by itself once) and cube (a number is cubed when it is multiplied by itself once and this in turn multiplied by the given number) clearly indicate their geometrical origin. (Plato even refers to square and cube numbers as planes and solids respectively.) [29] Indeed, numbers were referred to by the Greek mathematicians as cubes, squares, as oblong, triangular, polygonal, diagonal, as sides, as rectilinear, scalene, spherical, circular-all fundamentally *geometrical* terms. [80] A certain kind of proportion between numbers was called a geometrical proportion. [81] Various quadratic equations were solved geometrically using the construction of figures. [32] Clearly, as we said, Greek arithmetic was closely tied to geometry and then to physical magnitudes.

Since Aristotle, too, uses some of these geometrical terms in reference to numbers,S[3] this could indicate that he shares the views of his countrymen that arithmetic is closely related to geometry and thus that numbers somehow relate to physical magnitudes. Thus, the arithmetician also may be considered by the Stagirite to be restricted to constructing and hence treating objects in some way corresponding to physical things. [34]

•• The reference to Plato is in Heath, ... *Greek Mathematics,* I, 89.

[30] All these expressions can be found between pages 76 and 117 in Heath, ... *Greek Mathematics,* I.

[31] Heath, *ibid.,* I, 85.

•• Heath, *Mathematics in Aristotle,* p. 223; ... *Greek Mathematics,* I, 379 fi. B. L. van der Waerden, *Science Awakening* (New York: Science Editions, 1964), pp. 118-126.

[33] *Physics,* III, 4, 203a 13-15; *Posterior Analytics,* I, 12, 78a 4; *Nicomachean Ethics,* V, 3, 1131b 12-15. A particularly significant text is in the *Metaphysics,* V, 14, 1020b 3-6, where he refers to number in one or more *dimensions,* "... numbers which are composite and not of one dimension only, viz. those of which the plane and the solid *are copies,"* [italics mine] and of other similar features of numbers which he calls their " qualities."

•• I do not mean to imply by this that Aristotle denies the specific distinction

True, he in no place explicitly states that there is this restriction, on either geometry or arithmetic. Yet neither does he give an indication that he feels that the mathematician, either geometer or arithmetician, is free to construct or consider objects which do not in some way correspond to physical quantities. And most important, though there is nothing in his philosophy of mathematics which positively precludes this freedom, compared to St. Thomas, there is precious little that could form the epistemological basis for such freedom. It seems reasonable to conclude, then, in the absence of statements to the contrary, that Aristotle in this respect is a man of his time, i.e., he considers the objects of mathematics to be idealized representations of actual physical quantities and the mathematician to be restricted to such objects.

In concluding this section we should note the one text that some claim gives some indication (though I believe it to be extremely slight) that the Stagirite has some recognition of the freedom of the mathematician. [35] Aristotle refers to the necessity present in mathematical science as of a hypothetical type. He states specifically that "It is impossible, for instance, on a certain hypothesis that the triangle should have its angles equal to two right angles...." [36] On a different hypothesis, if a straight line, for example, is defined in a different way, the value of the interior angles will be two right angles. Does this imply that either hypothesis is permissible? To generalize, does this mean that the mathematician is free to construct and define his figure any way he pleases? Note clearly that Aristotle never

between arithmetic and geometry, between number and magnitude. Just the opposite. For instance, he criticizes the Pythagoreans for turning units into magnitudes. Nevertheless, even though he does assert the specific difference between the objects of arithmetic and of geometry, there is no indication that this leads him to disagree with his contemporaries who consider number in a geometrical context as representative of magnitudes. Numbers certainly are not magnitudes; they cannot be reduced to magnitudes; but still they can *represent* (Aristotle calls them *copies* in text of previous footnote) magnitudes.

•• Two who make this claim are Greenwood, "... Mathematical Constructibility," 91-93, and Heath, *Mathematics in Aristotle*, p. 101.

•• *De Caelo*, I, U, 28lb *5-6.*

says this. Indeed, it seems impossible to say he is even implying that either hypothesis is permissible. He is saying simply that if a different hypothesis were chosen different conclusions would follow. He never says that either one *can be* chosen. At best the passage shows that he does recognize that different conclusions follow from different premises, but nowhere does he really say that the premises are a matter of free choice. Indeed, in the light of all we have already seen, viz., that the only geometrical objects he mentions are those resembling real quantities, and that numbers, too, at his time corresponded to physical things and their quantitative features, the indication that he broke with the prevalent view of his time that mathematical objects are limited to representation of physical quantities seems very slight.

Let us now consider the philosophy of mathematics of Thomas Aquinas with a view toward seeing if he has any more explicit recognition of or epistemological basis for the freedom of the mathematician.

III. THE FREEDOM OF THE MATHEMATICIAN ACCORDING TO AQUINAS

We should remind ourselves at the very beginning of the areas of agreement of Thomas and Aristotle. For Thomas, like his predecessor, mathematics is a science of quantity abstracted from physical things, i. e., of real quantity not considered *qua* real. Does this mean that he limits mathematics to quantities closely resembling real things? We must reply that it is only such quantities that he, like Aristotle, explicitly mentions. And yet there are doctrines of his, doctrines not explicitly expressed by the Stagirite, that seem to provide the basis for a greater freedom on the part of the mathematician.

One such doctrine has to do with mathematical abstraction itself and the objects which are its result. In one text, Thomas describes these objects in a manner that indicates that he is much more aware than Aristotle of their great independence from (even though they are based upon) physical things.

Aristotle, of course, clearly affirmed that mathematical quantities exist as such (i. e., with their peculiar mathematical characteristics) only in the mind of the mathematician. Aquinas not only agrees with this but goes on to describe the objects of mathematics in terms which he uses to describe beings of reason.[37] He explains that, like the logical notions of genus, species, etc., a mathematical is *not* simply a likeness of realities existing outside the mind but instead is a consequence of man's way of knowing some things outside the mind. Things of this type, he says, are intentions which our intellect devises *(adinvenit)* because of its knowledge of extramental things. And he adds, significantly, the *proximate* foundation for such intentions is not " in things, but in the intellect, however the remote foundation is the thing itself."[38] The expressions used here by Aquinas to describe mathematical entities are the same as those he uses in other places to describe beings of reason.[89] This is not to say that mathematical quantities are simply created by man's intellect, for the intellect's act is of course rooted in physical things. But this is to say that that which immediately gives mathematicals their reality, that which is their proximate foundation, is the activity of the mind itself. (This is not, of course, the case with the beings studied in either physics or metaphysics. They exist in their own right apart from any act of a human intellect.)

I would like to suggest a contrast, or at least a difference in emphasis, between Aquinas and Aristotle on this point. The difference as I see it is that, compared to St. Thomas, Aristotle tends to view the mathematician as more passive in his act

•• *In I Sententiarum,* d. q. 1, a. S c (Parma edition, VI, p. (Incidentally, this passage was written by Aquinas late in his life and inserted in his *Commentary.* It should, therefore, give his mature position on the subject. On this point, see A. Maurer, "A Neglected Thomistic Text on the Foundation of Mathematics," *Medieval Studies,* XXI (1959), 187.)

•• *In I Sent., loc. cit.*

•• In *In IV Metaphysics,* L. 4, 574, for example, St. Thomas states that in contrast to a natural being an *ens rationis* is strictly speaking an intention which reason devises from the objects it considers, an intention which is not found in the nature of things but is a consequence of the consideration of reason.

of abstraction. To be sure, he " strips away " all the nonquantitative features of physical things-and this " stripping " itself is an activity on his part. Yet when it comes to the actual grasping of physical quantity the connotation is that the mathematician simply grasps what remains after all nonquantitative features are removed. He simply " liberates," so to speak, the real quantities of things from their sensible, mobile, material existence, and proceeds to study them-real quantities but not *qua* real. Now it is certainly true that Aquinas in many places, especially his *Commentaries,* speaks of the mathematician's abstraction in the same terms that his Greek predecessor uses. (See, for example, texts cited in my first Section.) Nevertheless, in the passage discussed in the previous paragraph he shows, I believe, more recognition of the activity of the intellect in the actual production of mathematicals. The mathematician does not just grasp real quantity stripped clean, he does not simply study a likeness of real quantities, rather his object is directly a product of his intellect's own activity-granted that the activity has its *remote* foundation in the experience of physical quantities.

Now in putting stress on the intellect as the proximate foundation of mathematicals, in stressing therefore that these entities are not mere likenesses of physical things, in describing mathematicals as similar to beings of reason, it seems to me that St. Thomas indicates much more clearly than did the Stagirite that he recognizes that the mathematician's activity of abstraction, and hence the object of his science, is not simply a replication of real physical quantities. And there are other doctrines of Aquinas which also have as their result the freeing of the mathematician from strict dependence on physical quantities, doctrines which also bring more precision into Thomas's statement that "the intellect" is the proximate foundation of mathematicals. Of great significance is his teaching on the role of imagination in mathematics. We will first discuss that role in general and then its specific relevance to the question of freedom in mathematics.

As is well known, the imagination for Aquinas plays a vital

role in all knowledge, for he believes there can be no intellectual knowledge without the phantasms it supplies.[40] Of particular import to our topic, however, is the special role it has in the science of mathematics. Unlike Aristotle, Thomas leaves no doubt that he holds that mathematicals, some at least, are imaginable. His texts which assert this are numerous; I will cite only one.

> When sensible characteristics are removed there remains something which is apprehended by the imagination.... Now mathematicals are of this sort.[41]

Of course, in speaking of mathematicals being grasped by the imagination, Thomas is referring to individual mathematicals, not to mathematical essences which are grasped only by the intellect. We noted in the previous section that in one place Aristotle spoke of individual mathematicals as grasped by "intuition," and distinguished this from mathematical essences which are grasped by the mind. We noted also that he defined this intuition no further. St. Thomas clearly refers this intuition to imagination.[42] Individual mathematicals as such are not attained by external senses, nor as individual are they present in the intellect which is directly of the universal. Yet as individual they must be grasped by a sense power-the imagination.[43]

And yet, to say that individual mathematicals are imaginable presents problems of its own. We noted in the previous section that Aristotle never asserts that mathematicals are imaginable,

[40] *Summa Theologiae*, I, q. 85, a. 1 c; *In III De Anima*, lect. 12, 781.

[41] *De Trinitate*, q. 6, a. 2 c. Other texts which affirm that mathematicals are imaginable are: *De Trinitate*, q. 6, a. 1 c and a. 2 c; *De Veritate*, q. *15*, a. 2 c; *In VII Metaphysics*, lect. 10, 1495; *In III De Anima*, lect. 8, 715-6; *Summa Theol.*, I, q. 7, a. 3 c; *In III Physics*, lect. 7, 341; and *In VI Nic. Eth.*, lect. 7, 1210, 1214.

[42] *In VII Metaphysics*, lect. 10, 1494-5.

[43] In the following passage Thomas clearly distinguishes the individual mathematicals which the imagination grasps from the essence of these mathematicals which is grasped by the intellect.

> "In the case of mathematics it can be shown that that which knows the essence, i.e., the intellect, is distinct from what apprehends mathematical objects themselves, i.e., the imagination." *(In III De Anima*, lect. 8, 715)

and we suggested why. The imagination is a sense power, but in his abstraction the mathematician leaves aside sensible qualities. How then can nonsensible mathematicals be grasped by the imagination?

Because of this difficulty, some commentators have suggested that the mathematicals which Thomas designates as imaginable are not really the individual, quality-less, non-three-dimensional objects of mathematics but only individual sensible objects which come very close to being like them, e. g., a colored line made up of very small dimensions but not actually colorless or unidimensional.[44] But this interpretation is contrary to too many explicit statements by Aquinas. In no uncertain terms he asserts that mathematical objects (in other words, the qualityless, uni- and bidimensional entities) are in the imagination. For example, in the *De Trinitate* he asserts:

> Mathematicals themselves come under the senses and are objects of imagination, such as figures, lines, numbers and the like.[45]

And there are countless places where he makes the same assertion.[46] In fact, mathematics is the most certain science, he says, precisely because its objects are free from sensible matter and yet imaginable.[47] The problem, therefore, remains-how can objects lacking sensible qualities be apprehended by a sense power?

The solution must lie in showing that Aquinas believes mathematicals to be sensible; in other words, in showing that mathematical abstraction does not leave aside all the sensible attributes of quantified physical things. Bear in mind that quantity is a common sensible and that the common sensibles,

[44] Some who hold this view are Bernard Lonergan, "Note on geometrical possibility," *Modern Schoolman,* XXVII (1950), 127; E. Winance, "Note sur !'abstraction mathematique selon saint Thomas," *Revue Philosophique de Louvain,* LIII (1955), 509; F. Collingwood, "Intelligible Matter in Contemporary Science," *Proceedings of the American Catholic Philosophical Association,* XXXVIII (1964), 110.

[45] *De Trinit.,* q. 6, aa. 1, 2 c.

[46] See the texts cited in footnote 41.

[47] *De Trinitate,* q. 6, aa. 1, 2 c.

like the proper sensibles, are directly, not incidentally, sensed/'[8] Would it not be possible then for the imagination, which is able to combine and divide imaginary forms and so end up with images " even of things not perceived by the senses," [49] to present an image of an originally apprehended physical thing which image would be of only part of that thing, viz., of some or all of its dimensions minus all of its proper sensible qualities? This ability of the imagination would explain how Thomas can say in reference to mathematicals that " even when sensible characteristics are removed there remains something which is apprehended by the imagination." [50] At least some mathematicals are sensible, and hence imaginable, because they are the abstracted dimensional quantitative features of physical things. [51] However, these imagined dimensions are mathematical and not physical because by the power of imagination they have been separated from the other sensible characteristics of physical things and may have even been reduced in dimension from the physical three dimensions. What I am suggesting in effect is that the imagination itself performs an abstraction on the common sensibles; after all, it is not only the intellect which abstracts according to Aquinas. [52]

•• *Summa Theol.,* I, q. 78, a. 3, ad

•• *Ibid.,* a. 4 c.

[80] *De Trinitate,* q. 6, a. c.

[81] I say " at least some " (not all) mathematicals are sensible and hence imaginable. In *In Ill De Anima,* lect. 7, 758, Thomas, following Aristotle, apparently says that points, which are dimensionless units having position, and units, which are both dimensionless and positionless, precisely because they lack all dimension cannot be grasped by any sense power but are only known mentally by negation. It would follow that a number, which is a plurality of units, would not be imaginable, though some symbol representing it could be.

'" To abstract, St. Thomas says, is to consider one entity without another when they are actually together in reality. *(De Trinitate,* q. 5, a. 3 c) Since each sense power considers only what is proper to it and omits all other features of the material thing, it can truly be said to abstract. Cf. *Summa Theol.,* I, q. 85, a. 3,

One should not identify this abstraction of the imagination with the second degree of abstraction, else he will end up with the difficulty Winance has, "Note sur !'abstraction mathematique ... ," 507 fl'. He clearly sees that merely eliminating sensible qualities by the imagination does not result in an object of a different

Incidentally, the fact that St. Thomas continually refers to mathematicals as "nonsensible " does not contradict this conclusion. For in making such statements it seems clear that the sensible features from which he considers the mathematician to abstract are the accidents which follow *after* the accident of quantity. "Accidents," he says,

> befall substance in a definite order. Quantity comes first, then quality, then passions and action. So quantity can be considered in substance before the sensible qualities, in virtue of which matter is called sensible, are understood in it.[53]

Clearly, the sense qualities he is talking about, those which follow quantity, are only the proper sensibles. Since the mathematician does not abstract from the accidents of quantity neither does he abstract from all sensible features, for quantity is a common sensible. The dimensional figures studied by mathematicians are not sensible inasmuch as they lack all proper sensible qualities. Since it is " the sensible qualities [which follow after quantity] in virtue of which matter is called sensible," the mathematicals can be called nonsensible. They are sensible, and hence imaginable, however, inasmuch as they are abstracted dimensions, for dimensions are sensible.[54]

degree of intelligibility, or indeed in any intelligibility at all. Therefore, because he has identified this abstraction of the imagination with the second degree of abstraction, he denies it any validity as a means of distinguishing the inteiligible objects of the sciences, 5IO. The degrees of abstraction for St. Thomas refer to abstraction by the *intellect* from matter and motion, *De Trinitate,* q. *5,* a. I c.

[53] *De Trinitate,* q. *5,* a. 3 c. See also *Summa Theol.,* I, q. *85,* a. I, ad

[54] In the previous section in order to emphasize the fact that Aristotle never refers to mathematicals as imaginable, we pointed to his use of the term inteiiigible, rather than imaginable, to designate the special kind of matter found in mathematicals. Some have in fact suggested that since some mathematicals are imaginable according to Aquinas he should have designated their matter as imaginable, rather than retaining the Aristotelian designation of it as intelligible. (Winance, "Note sur !'abstraction mathematique - - - ," *508-510)* However, such a change of terminology is unnecessary, since in its most fundamental sense inteiligible matter designates for Aquinas substance as the substrate of only the accident of quantity. But he notes, " the sense powers do not reach a comprehension of substance," *(De Trinitate,* q. *5,* a. 3 c) only the intellect does. Therefore, substance as the substrate of quantity is properly termed "intelligible" matter. On this point, see my article,

It follows from all of this that the imagination has an especially important role in mathematics for Aquinas-a role which, as we have said, is never mentioned by the Stagirite. For, in addition to providing a stable image from which the universal can be abstracted (this it does in all abstraction) ,[55] in mathematics it furnishes to the intellect perfectly appropriate individual mathematicals, which simply cannot be found in nature, individuals from which the mathematical essence can then be abstracted. The direct senses are able to supply an appropriate object for the abstraction of physical essences; for the intellect's abstraction the imagination simply provides a stability in the changing objects grasped by sense. But the direct senses themselves cannot provide a perfectly appropriate object for abstraction of mathematical essences, for mathematical objects as such are not attainable by these senses. Rather the imagination, through its abstraction discussed above, provides the proper object, the suitable individual mathematical quantity, from which the mathematical essence can be abstracted.

By locating individual mathematicals in imagination, Thomas has served to further liberate the objects the mathematician studies from a close dependence on physical quantities. This freedom is even more clearly brought to the fore by his assertion that the judgments of mathematics need only *terminate* in the imagination. In a passage of the *De Trinitate* Aquinas distinguishes between the origin and the termination of man's knowledge.[56] "Now the beginning of all our knowledge," he writes, "is in the senses "; however, the termination of knowledge is different in each of the three general kinds of science,

"Intelligible Matter and the Objects of Mathematics in Aquinas," *The New Scholasticism,* LXIII (1969), *555-576,* in which I distinguish the various meanings of intelligible matter in Aquinas.

[55] *De Trinitate,* q. 6, a. 2. On this point one might profitably consult the articles by C. De Koninck, "Abstraction from Matter: Notes on St. Thomas's Prologue to the *Physics," Laval Theologique et Philosophique,* XIII (1957), 140-1 and W. Gerhard, "Natural Science and the Imagination," *Thomist,* XVI (1953), 190-216.

[58] *De Trinitate,* q. 6, a. 2 c.

metaphysics, mathematics, and physics. " Judgment in mathematics," he asserts, " must terminate in the imagination." I take this to mean that these judgments are true of, refer to, imaginable entities. Thomas explains that, if a judgment is true of realities which are only intelligible, it must stop, " terminate," in the intellect, as do metaphysical judgments; it could not refer to imaginable or sensible realities and still be true of purely intelligible entities *qua* intelligible. Thus, if a judgment is true of imaginable entities which are not sensible, it must stop, " terminate " in the imagination:

> ... because, when sensible characteristics are removed there remains something which is apprehensible by the imagination, we must judge about such things according to what the imagination reveals.[51]

Finally, a judgment true of sensible realities, as in physics, must stop in the senses. To repeat, since mathematicals according to St. Thomas are neither sensible things of nature, nor purely intelligible realities, but (some at least) are imaginable, a judgment about these objects cannot terminate in the senses, nor simply in the intellect, but rather must do so in the imagination. In order to be true, judgments dealing with imaginable objects must refer to what the imagination presents.

There is another way of looking at this notion that judgments about mathematicals terminate in the imagination. According to Aquinas, in the mental act of judging we grasp the existence of an object, we grasp an entity as it *is.* This is distinguished from the act of apprehension which only grasps the nature of a thing and not its act of existence.[58] Now since some individual mathematicals exist as such by and in the imagination, it stands to reason that the act of judgment must refer to, terminate in, that which the imagination presents. In this connection, we mentioned in the previous section that Aristotle maintains that before a mathematical entity can be examined it must be " demonstrated " that it exists. Though he never said exactly how demonstrations of existence take place, judging from the common practice of his time he is referring to

[17] *Ibid.*

[58] *Ibid.,* q. *5,* a. S c.

the construction of these objects. Thomas also speaks of demonstrations of existence in mathematics, and he designates them as "operational" since they are by construction.[59] Now since this construction can only be of *individual* mathematicals (it makes no sense to speak of "constructing" a mathematical essence), it must take place in a sense power. But the only sense power which grasps individual mathematicals as such is the imagination. Hence, the locus of the construction of individual mathematicals must be this power. In other words, it is in the imagination that mathematicals are shown to exist, and this, of course, squares with the previously mentioned point that judgments of their existence must terminate in and only in the imagination.

Of course, as we have pointed out, if the mathematician's judgments need only refer to imagined entities, this makes the mathematician very free in his choice of objects and the operations he performs on them. While in physics and metaphysics the intellect must conform itself to sensible being and intelligible being respectively as they are in reality, in mathematics the intellect need only conform to beings which exist in the mathematician's imagination.

Both this position and the earlier one which stressed the intellect's activity as the proximate foundation of the objects of mathematics clearly show that Aquinas considers the mathematician to be free from treating only objects which resemble physical things. Yet how free? Is the mathematician free to construct any mathematical he can and then go on to investigate its properties? Perhaps it would be of some help to look more closely at the passage in which Aquinas speaks of mathematical demonstrations of existence-for this passage also sets forth clearly his analysis of the general procedure of the mathematician in his science. (One will note that it is the same general procedure Aristotle recognized.)

•• *In I Posterior Anolytics,* lect. 2, 5. Thomas also refers to construction in mathematics as the means of demonstrating the existence of mathematicals in *In II Posterior Analytics,* lect. 6, 4.

There is supposed in these [mathematical] sciences those things which are first in the genus of quantity such as unity and line and surface and other such. These being presupposed, certain other things are sought by demonstration, such as the quadrilateral triangle, the square in geometry, and other such things. These demonstrations are said to be, so to speak, operational, as is: On a given straight line to construct an equilateral triangle. This having been proved, certain further passions are proved, as that its angles are equal or some other such thing .... [60]

The mathematician supposes that those entities " which are first in the genus quantity" exist (in imagination) and using these entities goes on to construct, to demonstrate " operationally " certain figures or numbers composed of them. These constructions show that these composite objects do exist, and he then proceeds to prove the properties of these figures or numbers. As for the freedom of the mathematician in his demonstrations of existence, it would seem that he is at liberty to construct in imagination any mathematicals he can, and this would apparently mean any quantities whose existence is not self-contradictory. As far as the most basic quantities are concerned, these seem to present no limitation either. Certainly, as St. Thomas says, these elements-units, points, lines, and surfaces-are ultimate in the genus quantity. Nothing more basic could be abstracted and " supposed " by the mathematician-and indeed, since they are the most basic quantities, how could the mathematician do anything else but "suppose " them? [61] These certainly contain no built-in limitation as to what the mathematician can study, for they are able to make up any mathematical object in the imagination. They present no limitation other than that the mathematician must deal with quantity.

[60] *In I Posterior Analytics,* lect. 5.

[61] We might point out here that it is not up to the mathematician as such to investigate the real foundation of those elements whose existence he assumes. He simply takes them and goes to work from there. It would seem to be the province of the philosopher of nature to show the basis in reality of these quantitative elements and hence to show that they are not mere mental fictions.

IV. CONCLUSION

We have stressed the fact that, because individual mathematicals are located by Aquinas in the imagination and hence mathematical constructions of existence and scientific judgments need refer to only such entities, the mathematician is radically free in his choice of objects, and more specifically he need not consider himself limited to dealing with mathematical quantities which closely correspond to and/or resemble physical quantities. We have also suggested that this freedom is indicated by Thomas's teaching that it is the intellect's activity, not things, which is the proximate foundation of mathematical objects and, following from this, his description of mathematicals as similar to beings of reason (though one might quarrel with Aquinas and propose that it would be more accurate to say rather that the imagination's activity under the direction of the intellect is the proximate foundation of individual mathematicals) .

Though these doctrines provide an epistemological foundation for the freedom of the mathematician from physical things as far as his object is concerned, it remains the case that, like Aristotle, Thomas also refers only to mathematical quantities which in fact resemble physical quantities. The only geometrical figures and solids he mentions are those of Euclidean geometry. He too refers only to *real* numbers (not negative or imaginary) , and he refers to them in terms which may indicate that they are still being viewed as related to physical magnitudes. For example, he refers to numbers as surfaces, as solids, as two and three-dimensional, as squares, cubes, etc. (though he clearly recognizes that such words are used metaphorically) ,[62] and he never refers to a number raised to any power higher than three, the cube.

It is true, of course, that by the thirteenth century mathematical objects were not considered to be simply idealized representations of actual physical quantities, at least not to

[62] *In V Metaphysics,* lect. 14, 974; lect. 16, 989-991.

the degree that they were in Aristotle's day. For one thing, the algebra had been introduced by the Arabs and put into Latin by some of the earliest translators.[68] According to historians of mathematics, the most prominent mathematics book in Latin during Aquinas's time was probably the *Liber Abaci* by Leonardo Fibonacci (Leonardo of Pisa), published in 1202, and it was devoted to arithmetic and elementary algebra. Though it contained no recognition of negative or imaginary numbers,[64] it did have, in addition to the algebra, the use of the zero and of fractions and operations upon them.[65] Furthermore, during Aquinas's day symbols were more and more being used to represent quantities; in fact, one who pioneered this was a friar, Jordanus de Nemore, who in 1222 became general of the Dominican Order. Certainly, the use of symbols, instead of figures or numbers related to figures, to stand for quantities, implies a view of mathematics which sees its objects removed from direct correspondence to physical quantities. In fact, the use of the zero alone indicates this, for it has no physical counterpart, and, indeed, for this reason it was,looked upon by many as suspect.

It is difficult to believe that Thomas Aquinas, who in other areas was so keenly cognizant of the newly introduced knowledge of his time, would not at least have been aware of these developments in the mathematics of his day. Indeed, one author speculates that St. Thomas as a student used in his

•• Maurer, "A Neglected Thomistic Text ..• ," 185.

•• First used by Rafl'ael Bombelli, 1550. (D. Struik, *A Concise History of Mathematics* [New York, 1948], p. 114)

•• For information on this book, its author, and the general state of mathematics in the thirteenth century, consult F. Cajori, *A History of Mathematics* (New York: The Macmillan Company, 1951), pp. 117-125; H. Eves, *An Introduction to the History of Mathematics* (New York, 1961), pp. 209 fl'. See also T. Greenwood, *Etudes sur La Connaissance Mathematique* (Ottawa: Ottawa University Press, 1942)' pp. 66 fl'.

•• Greenwood, *Etudes sur ...* , p. *65.* However, Vernon Bourke, in his more recent work, *Aquinas' Search for Wisdom* (Milwaukee, 1965), says that the quadrivium was no longer followed in the thirteenth century because masters proficient in the mathematical sciences were scarce, p. 22. And he gives nothing to support the view that Thomas was taught the "new mathematics."

studies the *Liber Abaci,* for it was a commonly used text in the quadrivium. [66] Be that as it may, I know of no place in Aquinas's writings where he explicitly refers either to the algebra or to the zero or to the use of symbolism in mathematics. He, like Aristotle, refers only to figures and numbers which correspond to physical quantities.

Nevertheless, in spite of this, it seems clear to me that the aforementioned epistemological doctrines of Aquinas go much further than Aristotle's toward allowing great freedom to the mathematician. It may well be that Thomas himself was barely aware of the consequence of his own position. But it still remains that his teachings which emphasize that it is man's intellectual activity not physical things which is the proximate foundation of mathematical objects, and in particular his stress on the role of the imagination as that in which individual mathematicals are demonstrated to exist and in which mathematical judgments terminate, are at best only implied in Aristotle. And it is these doctrines which serve to liberate mathematics from any requirement of dealing with quantities which match real quantities.

THOMAS C. ANDERSON

Marquette University
Milwaukee, Wi8consin

IS "SELF-VALIDATING" RELIGIOUS EXPERIENCE LOGICALLY POSSIBLE?

MOST PHILOSOPHERS nurtured on the canons of empiricist methodology have looked with more than a little collective distrust upon the claim that "self-validating" encounter-experiences with God constitute the unimpeachable foundation for theological commitment, i. e., that there is a uniquely *religious* mode of knowing.[1] To begin with, and as pointed out by Frederick Ferre, the logic of encounter seems to be guilty of some serious question-begging[2] insofar as the very category of encounter entails an objective referent that is *encountered.* Nonetheless, proponents have continued to insist that" encounter" is the only term equal to the intensity and authority of such experience. Ferre argues further that the person to person "I-Thou" encounters which function as the analogical base for putative encounter with the divine are fraught with difficulties. For example, since illusion is often present in "encounter," how can we ever know that a putative encounter-experience is *ever* veridical as opposed to subjectivist?

> How disillusioning, after a prolonged period of silent " encounter " with a friend, to have the spell broken by hearing a sudden snore issuing from the other "Thou" who, it turns out, has been asleep the whole time! How shattering to discover that someone who has been throughly known, it seems, through " encounter " is really quite a different person from the one formerly imagined![3]

[1] Cf. C. B. Martin, "A Religious Way of Knowing," in *New Essays in Philosophical Theology,* edited by Anthony Flew and Alasdair Macintyre (New York: The Macmillan Co., 1955), pp. 76-95, for a very poignant critique of the "unique" logic of religious encounter.

[2] Frederick Ferre, *Language, Logic and God* (New York: Harper and Row, 1961)' p. 94.

[3] *Ibid.,* p. 103.

One response to Ferre here might be that, since the experience with a snoring friend could not legitimately be considered an *encounter-experience,* it thereby presents no significant threat to the logic of encounter. Simply because there are fake practicioners of medicine, this does not at all entail that the practice of medicine as such is bogus. Consequently, insofar as there can be encounter-experiences (whether with persons or God) , would they not thereby be veridical? Surely the notion of a *necessarily* veridical or self-validating experience (if logically intelligible) would serve to clarify what is *meant* by "encounter-experience " as opposed to the " ordinary " kind of experience so often prone to error and illusion.

However, the issue of religious encounter as such can surely be addressed quite independently of the exceedingly problematic notion of self-validating experience. While many have argued vigorously in support of the plausibility of direct experience of God, they have argued just as forcefully against the notion that the mode of verification and corroboration of such experience is disparate from that of experience of other sorts. George Mavrodes, for example, has contended that

> With respect to corroborating experience of other sorts, by other people, the status of religious experience is fundamentally similar to, not different from, that of other types of experience. [4]

Hence, insofar as the status of religious experience is not one which is epistemically unique, then while social corroboration might not be forthcoming in a given case of putative religious experience, it would always be (logically) *relevant* to the consideration of its veridicality. However, such corroboration or lack of it could have no logical relevance whatsoever in that regard for those who have maintained that religious experience is self-validating, i.e., that the experience as such carries with it its own *guarantee* of infallibility. Hence, according to the logic of self-validation, nothing beyond the experience-as-such could conceivably (in principle) call its veridicality into ques-

• George I. Mavrodes, *Belief in God* (New York: Random House, 1970), p. 77.

tion. However, for Mavrodes and thinkers like him, this does not mean that I am obligated to abandon my putative religious experience as subjectivist (or nonveridicfl.l) simply because I cannot get others to share it. On the contrary, testing procedures cannot always be employed even with regard to experience other than the putatively religious, but this does not at all mean that we are duty-bound, in such cases, to regard the alleged experience as erroneous rather than veridical. I may claim to see a wolf in the brush/ which, due to the speed and initiative of the wolf, my friends are unable to see upon rushing to the appropriate spot. Suppose there is no way, regardless of how hard I try, to enable them to see the wolf. Must I treat my claim to have seen a wolf as subjectivist rather than veridical? Surely not. Checking procedures both succeed and fail for *all* types of experience, and, consequently, the failure to achieve social corroboration with regard to any given case of putative encounter-experience with God is no more a reason for construing that experience as subjectivist than it would be for so construing the cited case of the wolf in the brush. Rather, as pointed out by Mavrodes, not every veridical experience is *capable* of corroboration; hence, to demand it is " simply to exhibit a foolish disregard for the relevant facts." [6] However, even though there can be veridical experiences which we cannot corroborate, this does not at all entail that social testing procedures can be dismissed as irrelevant *in principle* to the veridicality of *any* putative experience, including the putatively religious. Hence, the significant implication of Mavrodes' position in this regard is that there is *not* a unique logic of religious knowing; rather putative religious experience can be verdical without being *necessarily* verdical or self-validating. Consequently, it would be a most serious mistake to identify those who have argued the plausibility of direct experience of God with those who have argued the epistemological uniqueness or self-validating character of such experience. The two issues

• *Ibid.,* p. 79.
• *Idem.*

are clearly separate even though many thinkers have failed to treat them as such.

Nevertheless, to claim that social corroboration is not logically superfluous to the veridicality of religious encounter-claims, i. e., to reject the claim that religious experience is epistemically unique, is to invite the rather standard but still cogent observation that such corroboration has not, in fact, been very frequent. Consequently, this might help to explain the emphasis placed by many proponents of religious encounter *on* the epistemically unique or self-validating character of such experiences. There seems much to be gained by the encounter-theorist if it could indeed be established that the notion of a self-validating experience is a logically intelligible one.

Let us then turn to a consideration of whether or not there *can* be experiences which are self-validating, i.e., is it logically possible for there to be a certain kind of experience which carries with it its own *guarantee* of veridicality? While such a notion has been criticized severely, many theists have been just as vigorous in their support of the intelligibility (and indeed the actuality) of such experience. As pointed out by Ferre in his explication of R. B. Martin's critique of the existential significance of a putative self-validating experience with God, when the theist is confronted with the challenge that introspective procedures-as opposed to deductive and inductive reasoning-can never establish existence, the theist argues that

> *This one* kind of experience is capable of providing a foundation for ontological claims despite the lack of predictive power or testing procedures that are usually required for vindicating an existential claim.[7]

Surely, then, strictly from a *phenomenological* point of view (i. e., to suspend for the moment the question of their logical intelligibility), such experiences are most significant. Steven M. Cahn, for example, has argued that a self-validating experience is the *only* relevant foundation for belief in God since the philosophic " proofs " are simply unable to compel such belief:

[7] Ferre, *op. cit.*, p. 106.

A supernaturalist believes in God because of a personal self-validating experience ... A philosophic proof of the existence of God is thus of no use to the supernaturalist. If the proof is shown to be valid, it merely confirms what he already knows on the much stronger evidence of personal experience. If the proof is shown to be invalid, it casts no doubt on a self-validating experience. [8]

Hence, if Cahn is correct here with regard to the total irrelevancy of proofs as opposed to self-validating experiences, [9] then the question of the *logical* status of such experiences becomes a most important one to resolve.

One apparently serious criticism of the notion of self-validating experience has been that *experiences* as such are not subject to any kind of verification or validation whatsoever, [10] let alone self-validation. Rather, only propositions are subject to validation, and then, of course, only by means of public testing procedures. Also, it is argued that the claim of incommunicability would seem to protect the theist from the falsifying testimony of those who may have had the theist's experience without drawing his conclusions. Can these rather widely-supported criticisms be countered? First of all, it appears that the argument that only propositions, as opposed to experiences, are subject to validation is extraordinarily weak. Any appeal to ordinary thought and language reveals that we do talk about "veridical" versus" erroneous" experience and *know* what we are talking about when we draw such a distinction. Insofar as all experience involves mediation and thereby interpretive judgment (hence, the rejection by encounter-theorists such

[8] Steven M. Cahn, " The Irrelevance to Religion of Philosophic Proofs for the Existence of God," *American Philosophical Quarterly* (Vol. 6, No. Q), April, 1969, p. 17Q.

• While I believe that Cahn makes a very good point here, it might be important to note that, while such experience constitutes a *sufficient* condition for belief in God, it could not legitimately be held as a *necessary* condition for theological belief. Hence, even if a self-validating experience is the only justification for belief in God, we must recognize that there are a significant number of people who believe in God *without* justification. I have discussed this point in somewhat more detail in an essay, "Pragmatism, God, and Professor Matson: Some Confusions," forthcoming in *Philosophy and Phenomenological Research.*

[1°] Ferre, *op. cit.,* pp. 106-107.

as John Smith [11] of mystical immediacy as the kind of" experience " by which we *could* come to know the reality of God; on the contrary, proponents of mystical immediacy are really the "naive" epistemological monists of religious encounter), experiences *qua* the judgments involved *in* them are subject to verification and falsification. Consequently, structured or intelligible experience, as opposed to " raw feels," necessarily involves the conceptual or the intentional. As such, it entails propositional *attitudes,* though not necessarily *propositions.*[12] Hence, while we do not and need not express through verbal performance or propositions all of the judgments involved in our experience of the world, this in no way entails that experience can take place *without* interpretive judgment. Consequently, it is perfectly meaningful to speak of experiences as subject to verification and falsification. Concerning the second point of criticism, it would seem to be quite unprofitable to argue that the claim of " incommunicability " protects the theist from the opposing testimony of those who may have had his experience without drawing his conclusions, since the theist could simply respond here that, since the experience of God is self-validating, it would be tautologically impossible for someone to have it and not believe that he had experienced God. Rather, if someone believed that the experience in question was not an experience of God, this necessarily entails that the experience was *not* self-validating and thereby *not* an experience of God. Hence,. according to the theist, it follows that there *could* be no other conclusions drawn *if* the experience involved were (qualitatively) identical to his. However, since the plausibility of the theist's response here depends totally upon whether or not the concept of self-validating experience is logically intelligible, then this dispute cannot be resolved independently of, and hence brings us full-circle back to, the original and central question regarding such intelligibility.

[11] Cf. John Smith, *Experience and God* (New York: Oxford University Press, 1968)' p. *52.*

[12] Cf. Richard Bernstein, " Sellars Vision of Man-in-the Universe, (Part 1l) ," *Review of Metaphysics* (Vol. XX, No. 2), December, 1966, pp. 807-811.

However, granted that experiences as such (and not just propositions) are subject to verification and falsification, and granted that *if* self-validating experiences are logically possible then it would follow tautologically that they could not be misinterpreted, we still seem to be no closer to a solution of whether or not such experiences *are* logically possible. Can there be a kind of experience which, taken by itself, is sufficient to guarantee its own veridicality? As a preliminary to a defense of the thesis that there *can* be such experiences, I would suggest that the difficulty involved in resolving this question satisfactorily has resulted largely from the prevalent positivistic prejudice that methodological/epistemological questions are philosophically (logically) prior to substantive or existential ones. In this regard, it would seem that the question before us provides us with an excellent paradigm of the difficulties resulting from such a perspective. Specifically, and insofar as the issue of self-validating experience has been most pronounced within the context of the fundamental question of the reality of God, it would seem clear that the epistemological question regarding such experience cannot be answered prior to, i. e., independently of, the metaphysical question of God's existence; and that the distortion inherent in the positivist perspective becomes especially apparent insofar as we do attempt to answer it independently of the metaphysical question. For example, if we address the question of theological proof, it seems clear that we cannot decide the epistemological question of whether there can be a *proof* of God's existence [18] without a prior or at least concurrent decision on the ontological question, i. e., a proof of God's existence is possible *only* if God *exists;* there *cannot* be such a proof if God does *not* exist. Consequently, the epistemological question of the possibility of theological proof is seen to be logically posterior to the metaphysical question of God's existence. The general proof-question cannot decide the " legitimacy " or " cognitive meaningfulness " of the God-question; rather, it is the God-question which must ultimately decide the

[18] Cf. Mavrodes, *op. cit.*, pp. 47-48.

proof-question. Only if God exists can "God exists" be the conclusion of a sound argument for his existence. However, if God does not exist, then no sound argument for his existence is possible. Hence, insofar as the theological question provides us with a very clear paradigm of the essential confusion in the notion that epistemological questions of "proof" and "confirmation" are philosophically fundamental,. it is clearly time for an unequivocal rejection of this widely-held positivistic perspective that epistemological questions logically precede, and adjudicate the cognitive significance of, questions of existence.

However, what does all of this have to do with the question of self-validating experiences? Simply this: If it is indeed correct that the metaphysical question of God's existence is logically prior to epistemological considerations in this regard, i. e., if the question of the logical possibility of arriving at *knowledge* of the reality of God cannot be decided independently of a decision (whether correct or not) on the *metaphysical* question of God's existence, then the answer to the epistemological question of self-validating experience becomes *contextual.* Specifically, *if* and *only* if God exists are self-validating experiences logically and factually possible (though perhaps never actual). However, the nonexistence of God would clearly seem to entail the impossibility of such experience. That is, if theism be correct, then there is a transcendent God who, by virtue of the infinite power and authority indigenous to his nature/ [4] could see to it (since an experience *of* God could not occur without a revelation *from* God) that an experience of (or encounter with) him would be sufficient to guarantee its own veridicality. Surely there seems to be no logical problem in the notion that the Being with the infinite power and authority to create the universe *ex nihilo* could insure that, insofar as he chose to reveal himself to man, our experience of him would be self-validating, in which case there could not conceivably (in principle) be subsequent experiences of any kind which would constitute a *justification* for rescinding our com-

[14] We are, of course, confining ourselves here to theism as classically understood.

mitment to the veridicality of the original experience. If there *could* conceivably be subsequent justification for rejecting the original experience as nonveridical, then, of course, such experience could not legitimately be construed as self-validating. Hence, within the *context* of God's existence (i.e., if and only if the answer to the logically prior metaphysical question is Yes), the concept of a self-validating experience is logically intelligible insofar as there *could* be uncorroborated experiences about which we could not possibly err. While there is always, assuming the corrigibility of any human experience *not* controlled by God, the logical possibility of error with regard to our experience of other sorts, it is consistent to maintain that the Being who is God, precisely *because* he is God, could guarantee that experiences of him are no less than self-validating. Hence, if and only if God exists can there be a kind of experience which is necessarily veridical.

Consequently, if what has been argued thus far is sound, then, contrary to what is often taken to be philosophically axiomatic, existential fact can *decide* questions of logical possibility at least in the unique case wherein the existential fact is God's existence, and the logical possibility concerns that of self-validating experience. This is not at all to make the clearly nonsensical claim that God's omnipotence includes the ability to achieve what is clearly logically impossible, i. e., arrange for a circle to be a square, or a bachelor to be married, since, as has been widely pointed out, there is nothing *to* accomplish in this regard except an unintelligible arrangement of language. Further, while the categories of" square" and" bachelor" have a precision of meaning which is logically independent of the question of God's existence, this is surely not the case with regard to the category of " possible kinds of experiences," since, in the case of God's existence, the latter category takes on a range and a dimension which is surely unthinkable if God does *not* exist.

In this regard, it might be important to clarify that, while the existence of God is the necessary and sufficient condition

for the *possibility* of self-validating experiences, i.e., that self-validating experiences *can* occur if and only if God exists, this does not at all entail that, given God's existence, such experiences have in fact occurred or will occur. Rather, it is quite possible that God has chosen not to reveal himself by self-validating experiences. Hence, while it seems clear that God's existence guarantees the intelligibility (or possibility) of self-validating experience, it seems equally clear that his existence does not at all guarantee their actuality. Hence, the actuality of such experience remains a very difficult question indeed. I suppose it might be argued that, granted God's existence and hence the logical possibility of self-validating experience, it would be more likely than not that God would choose to actualize this possibility. However, such reasoning might be far from persuasive.

What exactly, then, are the implications of all of this for the vigorous dispute concerning the epistemic uniqueness of religious knowing, i.e., the issue of self-validating experience? First of all, if, as we have argued, it is the case that the epistemological question regarding the possibility of such experience cannot be answered independently of the metaphysical question of God's existence, then, while interesting and important, the former question is nonetheless seen to be a derivative or subordinate concern insofar as an answer to it must necessarily *presuppose* an answer to the metaphysical question. This is not, of course, in any way incompatible with the notion that we might well come to know the reality of God through direct experience. Hence, it is not the plausibility of encounter-experience with God which is at issue here; there is no logical problem whatsoever in the notion that we can experience the reality of God just as we can experience the reality of anything else. However, insofar as there is *not* a unique logic of religious knowing, then the veridicality of any putative religious experience cannot be said to be *guaranteed* simply on the basis of the experience as such. Rather, social corroboration would always be logically (if not psychologically) *relevant* to the question

of the veridicality of such experience (though, as we have seen, the failure to achieve corroboration does not at all entail that the experience in question is nonveridical). Consequently, and quite apart from what we have taken to be the plausibility of the claim with regard to religious encounter-experience as such, we have addressed the bolder and seemingly much more problematic claim that such experience constitutes a *unique* mode of knowing (i.e., is self-validating), and have concluded that such experience is possible, but *only* in the context of God's existence; consequently, we cannot *know* such experience is possible *unless* we know that God exists. Such is the problem: To have solved the question of self-validating experience is *already* to have solved the logically prior metaphysical question of God's existence. Consequently, the epistemological question with regard to self-validating experience cannot be decided or resolved in a metaphysical vacuum; the answer to the metaphysical question must be known or at least decided first. Hence, while progress in epistemology /methodology is an unquestionable philosophical desideratum, we must cast off those vestiges of positivism whereby we seek to achieve such progress without addressing ourselves to what clearly have shown themselves to be the prior metaphysical or substantive questions involved. Surely, the issue of self-validating experience affords us an excellent opportunity to regain this balanced philosophical perspective.

RoBERT A. OAKES

Univermty of Missouri
Rolla, Missouri

JESUS THE MAN AND JESUS THE CHRIST: DID BULTMANN CHANGE?

RUDOLF BULTMANN'S POSITION on the question of the relationship between the Jesus of history and the Christ of the kerygma is from one point of view a much easier topic to discuss today than it would have been prior to 1959. In that year, Bultmann delivered an address to the Heidelberg Academy of Sciences in which he answered the critics of his position and in so doing clarified what his position really was.[1]

Prior to 1959, this position was difficult to state with precision not only because his ideas were discussed in a number of books and essays spanning a number of years but because at times his views seemed contradictory. We read, for example, in his highly controversial 1941 essay entitled "New Testament and Mythology" that

> the agent of God's presence and activity, the mediator of his reconciliation of the world unto himself, is a real figure of history. Similarly the word of God is not some mysterious oracle, but a sober, factual account of a human life, of Jesus of Nazareth, possessing saving efficacy for man.[2]

All of this seems to indicate that Jesus of Nazareth is in his own personal history the means of our salvation. And yet in another passage we read what appears to be the opposite: "The Jesus of history is not kerygma, any more than my book was.[3]

[1] Rudolf Bultmann, "The Primitive Christian Kerygma and the Historical Jesus" (hereafter *PKHJ),* in *The Historical Jesus and the Kerygmatic Christ,* ed. and tr. Carl E. Braaten and Roy A. Harrisville, (New York: Abingdon Press, 1964), pp. 15-42.

• Rudolf Bultmann, "Kerygma and Myth" (hereafter *K&M),* tr. R. Fuller, (New York: Harper [Torchbooks], 1961), p. 44.

• *Ibid.,* p. 117. The "book" to which Bultmann refers here is his *Jesus and the Word.* See complete citation below.

For in the kerygma Jesus encounters us as the Christ-that is, as the eschatological phenomenon *par excellence.* Neither St. Paul nor St. John mediate an historic encounter with the historic Jesus." [4] And again: "I am deliberately renouncing any form of encounter with a phenomenon of past history, including an encounter with the Christ after the flesh, in order to encounter Christ proclaimed in the kerygma." [5]

Contradictory statements and ideas such as these are inevitable whenever a thinker is trying to develop an orginal idea. But his students and followers appreciate clarification. This is precisely what the 1959 Heidelberg Address accomplished: it *clarified* and refined what before had been at most an ambiguous position. But I submit that the Address did not alter his position. This I feel has always remained the same. The task of this essay will be to demonstrate why and how this assertion can be made.

THE VocABULARY oF THE EssAY

Before I can develop Bultmann's position, it is important to arrive at some initial and perhaps unsophisticated understanding of the terms involved, and then, secondarily, the nature of the problem. But the terms and the problem are not separable; in fact, because of Bultmann's use of the terms, the terms are the problem. This is because for Bultmann the terms signify two distinct realities: the Christ of the kerygma is an event, an understanding, a revelation apart from the Jesus of history whose life has ended and who cannot be present to our existence.

Traditional Christology, while at times retaining the two terms, will apply them to one reality: the kerygmatic Christ is the Jesus of history who was put to death and raised to life for our justification (Rom. 4: 25) and who lives as present to our personal histories as a transcendent but living person.

The reasons for the split between the historical Jesus and the kerygmatic Christ are based on two conclusions Bultmann

[4] *Ibid.* [5] *Ibid.*

draws from his study of the New Testament which are fundamental for any understanding of his position. Bultmann observes that Jesus did not proclaim himself as the savior; that is, he did not demand faith in himself precisely in the role of Savior of the World. Jesus's accomplishment was rather the announcement-in the Israelite prophetic tradition-of the imminent coming of the Reign of God, and the teaching-in the pedagogic style of the Palestinian rabbis-of an ethics of the will of God. Secondly, the Jesus of history had no consciousness of his redemptive mission; thus, for example, he could not possibly have understood his own death as a redemptive sacrifice.

Why, then, and how did this Jesus give rise to the proclamation in the early Church of the kerygmatic Christ? Briefly, it was due to the meaning that Jesus gave to the religious lives of his followers. He came to be *called* or *understood* by them as Redeemer or Savior, and this is how-in mythological language -he is described in the non-dominical units of the New Testament.

All of this will be seen in greater detail later. It is introduced here to set the stage for Bultmann's schematic description of what he feels is the essence of the distinction between the Jesus of history and the Christ of the kerygma:

1. In the kerygma the mythical form of the Son of God has appeared in place of the historical person of Jesus (as the Synoptic Gospels present it to the critical eye) .

2. While the preaching of Jesus is the eschatological message of the coming-more, of the breaking-in of the kingdom of God-in the kerygma Jesus Christ is proclaimed as the one who died vicariously on the cross for the sins of men and was miraculously raised by God for our salvation. In Pauline and Johannine theology the decisive eschatological event has thereby already occurred.

3. For Jesus the eschatological proclamation goes hand in hand with the proclamation of the will of God, with the call to radical obedience to God's demands culminating in the commandment of love. To be sure, ethical preaching is not abandoned in the Christ-kerygma, but when Paul and John connect ethical demands and above all the commandment of love, with the

they do not do so by resuming Jesus's exposition of the will of God as it appears in the Synoptic Gospels.[6]

CRITIQUE oF THE PosT-BULTMANNIANs

The clarifying Heidelberg Address came in response to several members of a school of German theologians who have been given the collective designation of "the Post-Bultmannians" or "the Marburgers." [7] Their collective grouping derives not only from their shared name and theological position but also from the fact that they were all, at one time or another, former students of Bultmann. The most prominent members of the group are Ernst Kasemann (Gottingen), Gunther Bornkamm (Heidelberg), Ernst Fuchs (Berlin), Hans Conzelmann (Zurich), and one American, James M. Robinson (Claremont School of Theology, California) .[8]

Although each maintains and develops slightly different approaches, they are united in the common belief that their former mentor places too much " distance " between the historical Jesus and the kerygmatic Christ, especially in the area of Jesus's messianic awareness. Their task is to close the gap by attempting to demonstrate that if the kerygma presents Jesus as Lord, as God's means of bringing redemption to men, as being in his person the inauguration of the eschatological era,[9] then the kerygma must reveal something of Jesus's own

[6] *PKHJ,* p. 16.

• Bultmann calls Marburg his " academic home." He studied there under such luminaries as Adolf Jiilicher and Johannes Weiss (Scripture) and Wilhelm Herrmann (Systematic Theology). He received his doctorate there in 1910 writing his thesis on *Der Stil der Paulinischen Predigt und die kynischstoiche Diatribe.* After a few years teaching at Breslau and Giessen, he returned to Marburg in the autumn of 19!<!1. There he taught till his retirement in 1950. He continues to reside at Marburg, now as Professor Emeritus. See: " Autobiographical Reflections of Rudolf Bultrnann," *The Theology of Rudolf Bultmann* (hereafter *TRB),* ed. Charles W. Kegley, (London: SCM, 1966), pp. xi:x-xxv.

[8] James M. Robinson, *A New Quest of the Historical Jesus,* (Naperville: Alex Allenson, 1959), pp. 9-19.

• As opposed to Bultrnann's view that Jesus only announced the corning of the kingdom (that is, pointing out the signs of the kingdom which vouch for its immanence) but did not, in his own person, actualize the presence of the kingdom (an *autobasileia)* .

understanding of himself.[10] In other words, it should be quite clear that when the term "the historical Jesus" is used in phrases such as "the quest of the historical Jesus," this does not refer to an attempt to discover Jesus's physical traits. (Generally, the term excludes his personality traits although sometimes exception is made even here.) Jesus's height, the tone of his complexion, his emotional control or lack thereof, an exact chronology of his life " as it really was " (Von Ranke) -while interesting areas of speculation in themselves-are simply not germane to their investigations.

Therefore, three levels of historical analysis must be distinguished: the physical level, the personality level, and the self-conscious level. By analyzing any historical figure within this last category one would hope to answer questions such as how he understood his own personhood, his life-mission or project, and if he had a dimension of religious awareness, a relationship to God or some transcendent principle. In short, this last category of analysis attempts to discern a person's total self-understanding.

Thus, while the Post-Bultannians agree with Bultmann that the quest for the details about Jesus on the physical level remain futile and irrelevant, " they do find it possible and necessary to penetrate back through the kerygma not merely to Jesus on the cross, but to Jesus in the whole span of his public life, that is, to the historical Jesus considered precisely in his existential significance." [11]

My procedure in this essay will be first to attempt a delineation of what Bultmann feels we can know about the historical Jesus and the authenticity of his rabbinic and prophetic self-consciousness. Secondly, I want to investigate Bultmann's position on the presence or absence of Jesus's messianic self-consciousness with its concomitent problems (for example, if Jesus had no messianic self-consciousness, why was he put to

[10] Raymond E. Brown, S. S., "After Bultmann, What?-an Introduction to the Post-Bultmannians," *Catholic Biblical Quarterly* (hereafter *CBQ),* XXVI (1964), 8.

[11] Joseph Bourke, 0. P., "The Historical Jesus and the Kerygmatic Christ," in *Concilium 11: Who Is]e8U8 of Nazareth?,* (New York: Paulist Press, 1965), p. 4!!.

death?). Vis-a-vis both these questions, but especially the latter, there will be the problem of the origin and meaning of the kerygmatic Christ: how and why he arose in a particular literary and proclaimed form. By way of conclusion, it would be important to examine the 1959 Heidelberg Address to obtain Bultmann's latest position on the *continuity* that can exist between Jesus and Christ.

Two INTRODUCTORY CoNcEPTS

Our understanding of Bultmann would be enriched if two of his most basic concepts received an initial discussion. The first is the three modes of discourse the New Testament uses in reference to the problem. The second is Bultmann's notion of myth.

Ian Henderson, one of the first English writers to publish a study of Bultmann's theology,[12] distinguishes three modes of discourse: the historic, the mythological, and the existential. In the *historic mode,* Jesus, for example, might be presented as "a rabbi who lived in the early years of the first century A. D. and ' suffered under Pontius Pilate '."[13] The *mythological mode* would find him presented as the Christ who " ' is the Lamb of God who takes away the sins of the world' (Jn. 1: 29), or as the pre-existent Logos who can say, 'Before Abraham was, I am' (Jn. 8: 59) ."[14] Finally, in the *existential mode* (sometimes called the *eschatological mode*[15]) Christ is presented as present to our own existence. For example, when Paul says " I have been crucified with Christ" (Gal. 2: 20) he is recording

[12] Ian Henderson, *Myth in the New Testament,* (London: SCM, 195!l).

[13] Edwin M. Good, " The Meaning of Demythologization," in *TRB,* p. SO.

[14] *Ibid.*

[15] The is understood as never before in its true sense of the ' once' of the eschatological event. This proclamation is a word which address me personally, and tells me that the preeminent grace of God has already acted on my behalf, though not in such a way that I can look back upon this act of God *as* a datable event of the past, but in the sense that God's having acted is present *as* an eschatological Now." *K&M,* p. for more on Bultmann's idea on "the eschatological," see his *History and Eschatology: the presence of eternity,* (New York: Harper [Torchbooks), 1957), pp. 151-154.

some experience that has effected his own life. Seen thusly and in contrast to the other modes the life of Christ appears as

> taken out of the purely historic realm. It has been taken out of the mythological realm, where we must imagine a cosmic transaction between God and Christ or between God and Satan. It has become the encounter of the self with God himself, in which one's own past and security give place to the past of the Christ event and to faith. [16]

This precise division of modes does not entail a lack of interrelationship. There is a relationship of either historic or material (essential) continuity between them, as will be seen more fully in the last section of this essay. Suffice it for now merely to indicate that the mythological mode is one method of verbalizing (and hence preaching) the existential experience. The cross, for example-when it receives faith's interpretation-must be re-expressed not simply as historical fact (because as such it has only historical and not saving content) but as *myth.*

By *myth* (and mythology) Bultmann does not mean to imply "unreal" or "pre-scientific" (although myths may be pre-scientific or scientific) or "false." By *myth* Bultmann means the description of a reality which transcends this world but is expressed in terms of this world:

> The real purpose of myth is not to present an objective picture of the world as it is, but to express man's understanding of himself in the world in which he lives. Myth should be interpreted not cosmologically, but anthropologically, or better still, existentially. Myth speaks of the power or the powers which man supposes he experiences as the ground and limit of his world and of his own activity and suffering. He describes these powers in terms derived from the visible world, with its tangible objects and forces, and from human life, with its feelings, motives, and potentialities[17]

In the case in question, the experience of the cross and the concomitant resurrection [18] experienced as salvific is unworldly

[16] *TRB,* p. 81.

[17] *K&M,* p. 10.

[18] For Bultmann, the cross and resurrection and the experience thereof are inseparably joined, see *K&M,* pp. 85-43; *Theology of the New Testament* (hereafter *TNT),* I, 45.

(eschatological) . It is an experience that lies outside the range of all other worldly phenomena. Yet it must be expressed in order to be preached. Myth is the form this experience takes when preached.

The Cross, first of all, viewed historically-of which no one denies the possibility-is simply one fact beside others, which can be observed in detachment. But when the Cross is viewed mythologically, it receives the power of faith's interpretation, as the Cross of the 'Lamb of God' or of *Christus Victor* who overcomes Death and Satan and their hosts.[19]

As existential experience expressed mythologically the event of salvation is not susceptible to historical proof or evaluation. It is true that individuals who have had the experience of the event can be studied through the documents of their personal histories, but the event itself cannot. This is what Bultmann means when he says:

What God has done in Jesus Christ is not an historical fact which is capable of historical proof. The objectifying historian as such cannot see that an historical person (Jesus of Nazareth) is the eternal Logos, the Word .... (Jesus's) work and destiny happened within world-history and as such come under the scrutiny of the historian who can understand them as part of the nexus of history. Nevertheless, such detached historical inquiry cannot become aware of what God has wrought in Christ, that is, of the eschatological event.[20]

BULTMANN's HISTORICAL JEsus

Bultmann's aversion to the *Christos kata sarka* has already been suggested in the first sections of this essay, although this aversion decreases as he moves through the three levels of historical analysis of Jesus. In this stance he does not differ substantially from his critical students, except perhaps in the degree of his hostility. He once wrote (in 1933): "How things

[19] *TRB,* p. 33. Bultmann's controversial "demythologizing" project-first set out in his "New Testament and Mythology "-was an attempt to interpret myths in categories understandable to the modem man.

[20] Rudolf Bultmann, *Jesus Christ and Mythology* (hereafter *JC & Myth),* (New York: Charles Scribner's Sons, 1958), p. 80.

looked in Jesus' heart I do not know and do not wish to know." [25] He will later temper this statement as a result of his scientific investigations and conclusions from the physical level of analysis. On this level he will admit very little, although he is willing to admit more than St. Paul. [22]

On the personality level of analysis Bultmann again seems conservative. Nevertheless, it is possible to detect a softened stance. As representative of his earlier position we could consult what might be called his only "life-of-Jesus" effort, *Jesus and the Word,* published in German in 1926 and in English nine years later. [23] In the introduction to that book he warns the reader of the paucity of information about the life and personality of Jesus:

> *Interest in the personality of Jesus* is excluded-and not merely because, in the absence of information, I am making a virtue of necessity. I do indeed think that we can now know almost nothing concerning the life and personality of Jesus, since the early Christian sources show no interest in either, are moreover fragmentary and often legendary; and other sources about Jesus do not exist. Except for the purely critical research, what has been written in the last hundred and fifty years on the life of Jesus, his personality and the development of his inner life, is fantastic and romantic. [24]

[21] Rudolf Bultmann, *Glauben und Verstehen,* I, (Tiibingen, 1933), 101, quoted in *TRB,* p. 37.

[22] " Jesus' death-and-resurrection, then, is for Paul the decisive thing about the person of Jesus and his life experience, indeed, in the last analysis it is the sole thing of importance for him-implicitly included are the incarnation and the earthly life of Jesus as bare facts. That is, Paul is interested only in the *fact* that Jesus became man and lived on earth. *How* he was born or lived interests him only to the extent of knowing that Jesus was a definite, concrete man, a Jew, 'Being born in the likeness of man and being found in human form ' (Phil. 7), 'Born of woman, born under the law' (Gal. 4, 4) . But beyond that, Jesus' manner of life, his ministry, his personality, his character play no role at all; neither does Jesus' message." *TNT,* I, tr. by Kendrick Grobel, (New York: Charles Scribner's Sons, 1951),

[28] Rudolf Bultmann, *Jesus and the Word* (hereafter *J&W),* tr. L. P. Smith, E. H. Lantero, (New York: Charles Scribner's Sons, 1958). He greatly qualifies what he wants to do in this book: " The subject of this book is, as I have said, not the life or the personality of Jesus, but only his teaching, his message." (p. . Commenting on this book six years later he wrote: "The Jesus of history is not kerygma, any more than my book was." *(K&M,* p. 117; see note 3, above.)

UJ&W, p. 8.

Even if some historical information seems to appear, Bultmann warns his readers to take into account which sayings of the New Testament belong to Jesus and which were inserted by later redactors:

> Little as we know of his (Jesus's) life and personality, we know enough of his *message* to make for ourselves a consistent picture. Here, too, great caution is demanded by the nature of our sources. What the sources offer us is first of all the message of the early Christian community, which for the most part the church freely attributed to Jesus. This naturally gives no proof that all the words which are put into his mouth were actually spoken by him. As can be easily proved, many sayings originated in the church itself; others were modified by the church.[25]

Bultmann is willing, with some reservations, to acknowledge something of Jesus's personality, namely, that Jesus had the characteristics of a rabbi: "We cannot doubt that the characteristics of a rabbi appeared plainly in Jesus' ministry and way of teaching, unless the tradition has radically distorted the picture."[26] Nevertheless, if Jesus was a rabbi (and here is where we can identify something of Jesus's uniqueness) he was not a typical one; he does not conform to the typical rabbi of his time:

> His intercourse with sinners, prostitutes, and publicans, which is surely historical, is also alien to the practices of a rabbi. If the tradition in this respect is reliable, he showed especial affection for children, a trait which does not correspond to the typical figure of a rabbi.[27]

By the time of his 1959 Address Bultmann is confident enough to admit more of Jesus's personality and behavior patterns, although he still maintains that this has to be done " with a bit of caution":

> With a bit of caution we can say the following concerning Jesus' activity: Characteristic for him are exorcisms, the breach of the Sabbath commandment, the abandonment of ritual purifications, polemic against Jewish legalism, .fellowship with outcasts such as

•• *Ibid.,* p. 12. •• *Ibid.,* p. 61. •• *Ibid.*

publicans and harlots, sympathy for women and children; it can also be seen that Jesus was not an ascetic like John the Baptist, but gladly ate and drank a glass of wine. Perhaps we may add that he called disciples and assembled about himself a small company of followers-men and women. [28]

The only significant facet of the historical Jesus is, according to Bultmann, the *message* that he preached/ [9] because only from an analysis of his message could his messianic self-consciousness be possibly determined. It should be stated from the outset that Bultmann concludes that he can find nothing of messianic self-awareness in the message of Jesus. Jesus regarded himself neither as messiah nor savior but simply as a prophet preaching the " *eschatological gospel-the* proclamation that now the fulfillment of the promise is at hand, that the Kingdom of God begins." [80] " Blessed are the eyes that see what you see! For I tell you, many prophets and kings have wished to see what you see, and could not see it, and to hear what you hear, but could not hear it." (Lk. 10: ll.4)

This eschatological gospel is preached, and preached with the certainty that" *the Kingdom of God is beginning, is beginning now!* " [31] The Kingdom is so imminent that it is foolish to demand definite and concrete signs (Mk. 8: 11 f.) because they already abound; the promise of the prophets is fulfilled: " The blind are regaining their sight and the lame can walk, the lepers are being cured and the deaf can hear, the dead are being raised and good news is being preached to the poor." (Mt. 11: 5) The Kingdom is here because Satan is overcome. (Lk. 10: 20)

The Kingdom that Jesus announces is deliverance for men. It is characterized by its complete and utter supernaturality. " It is that eschatological deliverance which ends everything earthly." [32] It comes as a gift from God himself, and "man

•• *PKHJ,* pp.

•• See note This analysis of Jesus's message will be taken from *J&W.* The same conclusions are presented in two other works of Bultmann's *Primitive Christianity,* tr. R. H. Fuller, (New York: Meridian [Living Age Books}, 1957), pp. 71-79, 86-91; and *TNT,* I,

[30] *J&W,* p. [31] *Ibid.,* p. 30. •• *Ibid.,* p. 35.

cannot hasten the divinely determined course of events, either by strict observance of the commandments and by penance-as the Pharisees supposed-or by driving out the Romans by force of arms-as the Zealots fancied." [33] Bultmann cannot emphasize this point enough:

> The Kingdom of God is not an ideal which realized itself in human history; we cannot speak of its founding, its building, its completion; we can say only that it draws near, it comes, it appears. It is *supernatural, superhistorical;* and while men can " receive " its salvation, can enter it, it is not *they,* with their fellowship and their activity, who constitute the Kingdom, but God's power alone. [34]

Jesus's mission is to announce the demand for decision to live the life of the kingdom. This decision is essentially repentance and a life lived according to the will of God: " From that time Jesus began to preach and say: Repent! for the Kingdom of Heaven is coming!" (Mt. 4: 17 f.) Jesus in his person is a sign of the time but does not embody the kingdom in his own person:

> Basically, therefore, *he in his own person is "the sign of the time."* Yet the historical Jesus of the synoptics does not, like Johannine Jesus, summon men to acknowledge or " believe in " his person. He does not proclaim himself as the Messiah, i. e. the king of the time of salvation, but he points ahead to the Son of Man as another than himself. *He in his own person signifies the demand for decision,* insofar as his cry, as God's last word before the End, calls men to decision. Now is the last hour; now it can be only: either-or! Now the question is whether a man really desires God and His Reign or the world and its goods. [35]

Jesus demanded obedience-not to himself-but to God's will: "the ethic of Jesus, exactly like the Jewish, is an ethic of obedience, and the single though fundamental difference is that Jesus conceived radically the idea of obedience." [36] "Jesus knows only one attitude toward *God-obedience."* [37]

While the imminent coming of the Kingdom and what man's

[88] *TNT,* I, 7.
[89] *J&W,* p. 88.
[90] *TNT,* I, 9.
[91] *J&W,* p. 78.
[92] *J&W,* p. 48. See also: pp. 72-78, 77.

response to it ought to be are the core of Jesus's message, several other ideas ought to be mentioned as corrollaries to the central doctrine. Certainly Jesus accepted "without question the *authority of the (Old Testament) Law,"* [38] although given the demands of the Kingdom and obedience to God it must be radically reinterpreted:

> Jesus apparently intends to attack merely a particular scribal interpretation of the Old Testament. Actually he opposes not only a whole group of Old Testament laws, but the Old Testament itself as formal legal authority ...
>
> What God's will is, is not stated by an external authority, so that the content of the command is a matter of indifference, but man is trusted and expected to see for himself what God commands. God's requirements are intrinsically intelligible. And here the idea of obedience is first radically conceived. For so long as obedience is only subjection to an authority which man does not understand, it is not true obedience; something in man still remains outside and does not submit, is not bound by the command of God.[39]

The God to whom this personal obedience is owed is not conceived of as a philosophical first principle or remote being. For Jesus:

> God is not an object of thought, of speculation; he does not press into service the concept of God in order to understand the world and comprehend it as a unity. Therefore God is to him neither a metaphysical entity nor a cosmic power nor a law of the universe, but personal Will, holy and gracious Will.[40]

Of minor importance in Jesus's message are such items as a belief-held in common with his contemporaries-that there are miracles [41] and that the prayer characteristic of him is in the style of the *Our Father.* [42]

A.) *Jesus's Self-Understanding as Bearer of the Word.*

Jesus clearly regards himself as a prophet and rabbi, and this we have been able to indicate by an examination of the message

[38] *Ibid.,* p. 61.
[39] *Ibid.,* pp. 76-77.
[40] *Ibid.,* p. 151.
[41] *Ibid.,* p. 161.
[42] *Ibid.,* p. 180.

he preached. From all the later estimates and interpretations of Jesus that arose in the early preaching, only one corresponds to Jesus's own view of himself: that he is "one sent by God, as bearer of the word." [43] This is the only exalted concept Jesus has of himself. This is how Bultmann interprets such passages as Mt. 11: 6 ("And blessed is the man who finds nothing that repels him in me.") ; Lk. 8-9 (" Everyone who will acknowledge me before men, the Son of Man will acknowledge before the angels of God.") ; and Mk. 8: 38 (" If anyone is ashamed of me and my teachings in this unfaithful and sinful age, then the Son of Man will be ashamed of him, when he comes back in his Father's glory."). Jesus thus conceives of himself as the bearer of the word, " and in the word he assures man of the forgiveness of God." [44]

This is an unsettling doctrine because of the wide range of interpretations that could be given to it. Bultmann is aware of these possibilities and is quick to point out that, on the one hand, he is not interpreting Jesus's mission as word-bearer to mean that he had a divine nature which gave his words authority:

> Neither in his sayings nor in the records of the primitive church is there any mention of his metaphysical nature. The primitive community did indeed believe him to be the Messiah, but it did not ascribe to him a particular metaphysical nature which gave his words authority. On the contrary, it was on the ground of the authority of his words that the church confessed that God had made him Lord of the church. Greek Christianity soon represented Jesus as Son of God in the sense of ascribing a divine " nature " to him, and thus introduced a view of his person as far removed as possible from his own. [45]

On the other hand, Jesus's message is more than a simple revelation of his personal beliefs and convictions. The word of Jesus, according to Bultmann, is an event in one's personal history. It opens for man (and humanity in general) new possibilities that were not previously present, not previously

•• *Ibid.,* p. "*Ibid.,* p. 217. '" *Ibid.,* p. !!16.

available to man as a real opportunity for his own life. The word that Jesus preaches is an offer of the possibility of receiving forgiveness from God. Such a word is far more than a revelation of self on the part of Jesus (although it is that as well)—it is an offer of a new possibility for man. And" whether his word is truth, whether he is sent from God," writes Bultmann in the concluding lines of his study, "is the decision to which the hearer is constrained, and the word of Jesus remains: 'Blessed is he who finds no cause of offense in me.'" [46]

B.) *Authenticity of the Prophetic and Rabbinic Self-Consciousness from the Standpoint of New Testament Criticism.*

Bultmann is confident that both the prophetic and rabbinic roles of Jesus (and the fact that he understood himself in these ways) can be substantiated by biblical criticism. Bultmann's difficulty with the New Testament is, of course, that of all New Testament scholars: namely, to determine which of all the statements, stories, histories, and so on (technically called the " individual units of tradition ") are dominical in origin and which are insertions by the primitive Christian community.

It is common knowledge that the Gospels are not biographical studies of Jesus of Nazareth in the same ways as are the biographies of other men in history. Prior to **1901** it was believed that at least St. Mark's Gospel (the source-along with Q-on which the other Gospels depend) was a reliable and accurate account of the life and times of Jesus of Nazareth. But in that year William Wrede published *The Messianic Secret* in which he argued that" Mark's Gospel was the work of an author steeped in the theology of the early Church, and who ordered and arranged the traditional material that he received in the light of the faith of the early Church." [47] Thus,

•• *Ibid.,* p. !U9.

[47] Rudolf Bultmann, *The History of the Synoptic Tradition,* tr. John Marsh, (New York: Harper and Row, 1963), p. I. The essence of Wrede's thesis is that Mark's concern and intent was to present Jesus as revealing his messiahship only gradually to his followers. They, in turn, were instructed to keep this a secret until after the resurrection (e. g., Mk. 9: 9). Mark's Gospel has been called, on

Mark's Gospel is no more reliable than the others as a source-book about the historical Jesus.

In spite of all this, Bultmann is willing to fight from a minority position. He suggests three norms for determining authentic dominical statements and attitudes even within the highly colored Gospels: 1) the absence of ecclesiastical self-interest; the necessity for historical comprehensibility; and 3) the basic honesty of the New Testament. The implication and meaning of these norms will become clear when they are applied.

In the case of Jesus's prophetic self-consciousness, all three norms come into play. Bultmann's *first argument--and* his least convincing-is the one from the basic honesty of the New Testament. He simply asserts, with no further proof, that it is hard to understand " the certainty with which the Christian community puts the eschatological preaching into the mouth of Jesus if he did not really preach it." [48] The absence of ecclesiastical self-interest constitutes the *second argument,* and, from the form critics' point of view, the most convincing. His major premise is that " the critical analysis of the text shows that later sayings have often been added to an older eschatological stratum, and these later editions exhibit characteristics of the church." [49] As examples of early ecclesial life and concerns he cites

> the interest in the dignity of their leaders and the rewarding of the faithful (Mt. 19: f.; Lk. f.; Mk. 10: or the anxiety over the delayed coming of the " Son of Man " (Lk. 35-38, 47 f.; Mk. 13: 31, 33-47), or threats of punishment against the unbelieving Jews (cf. Mt. 11: Lk. 19: 39-44, .[50]

All sayings that do not exhibit ecclesial preoccupation, then, must go back to Jesus: **"It** is probable that such sayings as betray no church interest at all really go back to Jesus." [51] His *third argument* is from the necessity of historical compre-

this account, "the book of secret epiphanies " (M. Dibelius) or the "book of kerygmatic expansion" (G. Sloyan).

•• *J&W,* p. 124.

•• *Ibid.*

[60] *Ibid.*

[61] *Ibid.*

hensibility. Applied to the case in point this would mean that the Gospels themselves would not make sense if Jesus did not play the part of the prophet. All of Jesus's preaching, but especially his death on the cross, " are historically comprehensible only if he really spoke as a messianic prophet." [52] In other words, Jesus was put to death because of his messianic claims (or more precisely, because his prophetic activity was construed as political activity). This Bultmann maintained in *Jesus and the Word* (" He was finally crucified as a Messianic agitator." [53]) and still maintains as is evident in the Heidelberg Address:

> What is certain is merely that he was crucified by the Romans, and thus suffered the death of a political criminal. This death can scarcely be understood as an inherent and necessary consequence of his activity; rather it took place because his activity was misconstrued as political activity. [54]

In the case of Jesus's rabbinic self-consciousness, however, only two of the norms come into play-that of the absence of ecclesiastical self-interest and the basic honesty of the New Testament. If the early Church understood and proclaimed Jesus as messiah, goes the *first* argument, it would be difficult to understand why they would insist on his rabbinate if it were not a dominate and impressive characteristic of his life. It is incredible that the early community " would transform into a rabbi him whom they looked upon as Messiah." [55] This argument, as with the second, seems to combine both norms simultaneously. Bultmann notes that the Jerusalem church was highly legalistic and maintained the ideal of legalistic perfection, the preaching of Paul and other Hellenistic missionaries notwithstanding. It is incredible, then, "that the words of Jesus which in their implications shatter this ideal and destroy the spirit of legalism which was practiced in the early church should not go back to Jesus himself." [56]

•• *Ibid.* " Indeed he was probably far more an eschatological prophet than is apparent from the tradition." *J&W,* p. 124.

[53] *Ibid.,* p. 28.

•• *PKHJ,* p. 24.

[55] *J&W,* p. 126.

•• *Ibid.*

THE CHRIST OF THE KERYGMA AND JEsus's MESSIANIC SELF-CONSCIOUSNESS

The decisive *question* is whether or not Jesus considered himself to be the Messiah or at least considered his death to have messianic significance. The decisive *problem* centers, as has been indicated, around the manner and method in which the New Testament, and particularly the Synoptic Gospels, was composed. Since the New Testament was composed in the light of the resurrection experience, and since it is kerygmatic and catechetical in character, the effects of these features will make themselves felt throughout the entirety of the New Testament.

In their enthusiasm to present the once-for-all impact of Jesus on their lives, the early churchmen reached for the grandest and most contemporary set of categories [57] in which to proclaim not only the message of Jesus but also his person. The fact that over and above the proclamation of the *message,* the *person* of Jesus was also proclaimed is the meaning of Bultmann's famous axiom-the "proclaimer became the proclaimed":

> As the synoptic tradition shows, the earliest Church resumed the message of Jesus and through its preaching passed it on. So far as it did only that, Jesus was to it a teacher and prophet. But

•• This, again, is the process of mythologizing. (See: *JC & Myth,* pp. 16-17.) Bultmann discusses a twofold effort at work in the early church, corresponding to the two cultures into which the message of Jesus had to be translated. In Palestinian Christianity the titles conferred upon Jesus to indicate his significance and dignity were taken from the national aspirations (e. g., Son of David), or-more predominately-from Jewish apocalyptic and eschatological expectations. (Son of Man, Servant of God).

In Hellenistic Christianity Jesus was called "Lord" (d1ptos) and worshipped in a cultic fashion. What is important to note is that these apparently diverse and exclusive titles (Palestinian Christianity never used the title "Lord" [in Q the title never appears], while Paul--embodying the theology of Hellenistic Christianity-never uses Son of Man or Christ, insofar as the latter is a nationalistic title for him and not a personal name) are *in meaning united:* they all refer and interpret Jesus to their respective cultures that *Jesus is the eschatologicalsalvation-bringer*. *TNT,* I, 48-58; *History of Primitive Christianity, ibid.,* pp. 84, 124.

Jesus was more than that to the Church: He was also the Messiah; hence that Church also proclaimed him, himself-and that is the essential thing to see. He who formerly had been the *bearer* of the message was drawn into it and became its essential *content. The proclaimer became the proclaimed.* [58]

Because Jesus's death was most difficult for his disciples to understand, and because it stood most in need of an apologia, this one event was mythologized in a thorough fashion. "It is understandable that they (the disciples) solved the oppressive riddle of his death by interpreting this death as a messianic event." [59]

Bultmann has been consistent in this position throughout his career. In *Jesus and the Word* he argued that "Jesus did not speak of his death and resurrection and their redemptive significance." [60] Those sayings of such a nature as are attributed to him (for example, Mk. 10: 45; 14: 23-24) "originated in the faith of the church-and none of them even in the primitive church, but in Hellenistic Christianity." [61]

In his *magnum opus, The Theology of the New Testament,* Bultmann distinguishes between the synoptic presentation of Christ and that of John and Paul. For the synoptic writers, Jesus was interpreted in Jewish eschatological categories, the most prominent of which was the concept "Son of Man." Living with the expectation of the immanent dramatic end, the synoptic writers used this Son of Man concept to refer to Jesus as being messiah only in his second coming. He would be constituted messiah only in his second coming, and not before. He would not be the messiah who returned but Jesus returning to function as messiah. His earthly activity as rabbi and prophet in no way qualified him to be understood as messiah:

It is clear in the first place that when Jesus was proclaimed as Messiah it was *as the coming Messiah,* in other words as *Son of Man.* Not his return as Messiah, but his coming as Messiah was

•• *TNT,* I, 88-84.
•• *PKHJ,* p.
•• *J&W,* p.
[01] *Ibid.,* pp.

expected. That is, his then past activity on earth was not yet considered messianic by the earliest Church. [62]

However, the idea emerged, gradually and with a great deal of restraint, that "Jesus having come was itself the decisive event," [63] meaning that his having come was the eschatological occurrence. This is the meaning of the *Easter* faith-that the Church was finally able to understand that Jesus was the messiah, that" God has made the prophet and teacher Jesus of Nazareth, Messiah." [64]

Thus the Easter faith developed in the early Church in response to the problem of the cross; in fact, the Easter faith is " *a way of understanding* the cross that would surmount, yes, transform, the scandal of the curse which in Jewish opinion had befallen the crucified Jesus (cf. Gal. 8: 18) ." [65]

Given this insight, the synoptic writers began to read into the previously perplexing problem of the cross a meaning which was derived from their Easter faith. The early apologetic of the cross was a two-pronged attack. Negatively, the cross was interpreted as the result of divine decree, as the result of a divine must (Se£) :

> Scripture proof explaining Jesus' suffering and death as divinely decreed in the manner of Lk. 24, 26 f. can be taken as characteristic of one stage of the earliest Church's reflection on the subject: "'Was it not necessary that the Christ should suffer these things and enter into his glory? ' And beginning with Moses and all the prophets, he interpreted to them in all the scriptures the things concerning himself." If that was their understanding, one would have to admit that as yet the stumbling-block of the cross had only been negatively removed so long as it was only placed under the divine " must " (&i) , and that its positive meaning had not yet become clear. [66]

The positive thrust saw the cross interpreted in terms of Jesus's death as being an expiatory sacrifice for the sins of men. Such an idea is recorded for us in St. Paul, although Bultmann

[62] *TNT,* I, 88.
•• *Ibid.,* p. 48.
••*Ibid.*
•• *Ibid.,* p. 45.
•• *Ibid.,* p. 46.

feels that such an interpretation of the cross is foreign to Paul except in those isolated instances in which Paul is merely repeating a traditional creedal statement which originated in the early Church. As an example, Bultmann cites Rom. 3: 24 f., in which he sets off with parenthesis expressions that Paul has himself added to the traditional formula:

> Justified (by his grace as a gift) through the redemption which is in Christ Jesus, whom God put forward as an expiation by his blood (to be received by faith); this was to show God's righteousness, because in his divine forebearance he had passed over former sins.[67]

Having seen how the early community came to interpret Jesus's coming as the decisive event (Synoptics) and the cross as the culmination of his messianic activity (the tradition recorded in Paul) , we can now return to our original question: did Jesus himself have any idea at all of his own messiahship?

Bultmann feels that there are only two possibilities for saying that Jesus could have had something of a messianic consciousness: 1) Jesus could have reinterpreted the traditional messiah-concept in such a way that, when he claimed to be what he was, he was in fact naming himself as messiah. 2) Jesus could have been conscious of being the one destined to be the future Messiah, that his idea of Messiah was futuristic.

Bultmann rejects both possibilities. His argument against the first centers around the fact that only the tradition could inform us of Jesus's reinterpreting activity. But there is no such evidence: " Where is such a thing indicated? Where, in the words of Jesus, is there a polemic against the conventional Messiah-concept? " [68] At most, the question about the Son of David as messiah (Mk. 12: 35-87) might be cited as counter evidence. This passage seems to contain a criticism of the concept of the Messiah as the Son of David. This it is to a degree. But this does not constitute messianic reinterpretation because " what it does say is that when the Messiah is called Son of

•• *Ibid.* The translation of the text is Bultmann's own. The designation of Christ as expiation, mercy-seat *(l"ll.a.uT-fJptov)* occurs only once in Paul and that is here.

•• *Ibid.,* p.

David, his rank and dignity are given too humble a name." [69] This explanation seems to be correct since the early church understood Jesus to be Son of David (see the lineages of Jesus: Mt. 1: 1 ff.; Lk. 3: ff.; and Rom. 1: 3). If the early Church was anxious to present Jesus as messiah as well-a much more fantastic appellation than Son of David-they would want to preserve the criticism of the Son of David concept, while, at the same time, not obliterating the connection between the two.

Against the second possibility, that Jesus was conscious only of being the future (coming) messiah, the argument is much more complex. The problem to be dealt with here is the title "Son of Man"; the question being, does Jesus's use of the Son of Man title indicate his awareness of being the future messiah? This is a considerable problem because of all the titles that Jesus either used of himself or were applied to him, the Son of Man is the most popular. [70] It appears a total of 69 times in the Synoptic Gospels, 30 in Matthew, 14 in Mark, and in Luke, although other New Testament writings evidence a sharp decline in usage. St. John, for example, uses it only times, while in Acts it appears only once. In St. Paul it is non-existent.71

Bultmann's argument is complex and scholarly. He begins by noting that " the synoptic tradition contains no sayings in which Jesus says he will sometime (or soon) return. Secondly, Jesus himself made no connection between his own death and resurrection and his parousia; and certainly, the first, seen as removal from history, would have to precede the second:

> But how would we have conceived his removal from the earth? As a miraculous translation? Among his sayings, there is no trace of any such fantastic idea. As departure by natural death, then? Of that, too, his words say nothing. By a violent death, then? But if so, could he count on that as an absolute certainty-as the

•• *Ibid.*

[70] Oscar Cullman, *The Christology of the New Teatament,* tr. S. C. Guthrie and A. M. Hall, (London: SCM, 1959), p. 137.

[71] Louis F. Hartman and J. T. Nelis, "Son of Man," *Encyclopedic Dictionary of the Bible,* ed. A. van der Born, tr. Louis F. Hartman, (New York: McGraw-Hill, 1963), p. 2275.

consciousness of being raised to the dignity of the coming Son of Man would presuppose? To be sure, *the predictions of the passion* (Mk. 8: 31; 9: 31; 10: 33 f.; cf. Mk. 10: 45; 14: 21, 41) fortell his execution as divinely foreordained. But can there be any doubt that they are all *vaticinia ex eventu?* Besides, they do not speak of his parousia! And the predictions of the parousia (Mk. 8: 38; 13: 26 f.; 14: 62; Mt. 24: 27, 37, 39, 44 par.) on their part, do not speak of the death and resurrection of the Son of Man. Clearly the predictions of the parousia originally had nothing to do with the predictions of death and resurrection; i.e. in the sayings that speak of the coming of the Son of Man there is no idea that this Son of Man is already here in person and must first be removed by death before he can return from heaven.[72]

All of this implies that there was some confusion about the meaning and implication of the title Son of Man. If the different uses of the concept can be isolated and defined with some degree of precision, then it might be possible to understand how Jesus was able to use the term " Son of Man " and not imply a recognition of his own messiahship, while at the same time the early church was able to employ the same concept and in doing so proclaim Jesus as messiah.

There are three ways in which " Son of Man " is used in the synoptics: to speak of him as coming, to speak of him as suffering and dying, and to speak of him as now at work.[73]

The third group of usages (for example, Mk. 2: 10, 28; Mt. 8: 20 par.; 11: 19 par.; 12: 32 par.) owe their origin to a misunderstanding of the translation into Greek. " In Aramaic, the son of man in these sayings was not a messianic title at all, but meant' man' or' I'." [74]

The second group of usages which speak of the Son of Man as .•1uffering,dying, and rising again are those that the early Church injected into the tradition (the *vaticinia ex eventu).* Bultmann is able to reach this conclusion only after a study of the sayings from the Q source in which he is able to find no sayings which refer to the Son of Man suffering, dying, and rising.[75]

Ony the first group belong to the oldest source and can be

•• *TNT,* I, 29-SO.
•• *Ibid.,* p. SO. •• *Ibid.*

attributed to Jesus. But here" Jesus speaks of the Son of Man in the third person without identifying himself with him." [76] The evangelists and the church which handed down these sayings identified the Son of Man with Jesus. Compare, for example, the following units:

Therefore everyone who will acknowledge me before men I will acknowledge before my Father in heaven, but anyone who disowns me before men, I will disown before my Father in heaven. (Mt. 10: 32 f.)	I tell you, everyone who will acknowledge me before men, the *Son of Man* will acknowledge before the angels of God, but anyone who disowns me before men will be disowned before the angels of God. (Lk. 12: 8 f.)
	For if anyone is ashamed of me and my teachings in this unfaithful and sinful age, then the *Son of Man* will be ashamed of him, when he comes back in his Father's glory, with the holy angels. (Mk. 8: 38).
It was then that Jesus Christ for the first time explained to his disciples that *he* had to go to Jerusalem and endure great suffering there at the hands of the high priests, and scribes, and be killed, and be raised to life on the third day. (Mt. 16: 21).	The *Son of Man* is to be handed over to men, and they will kill him, and three days after he is l<illed he will rise again. (Mk. 9: 31)
Blessed are you when people abuse you, and persecute you, and falsely say everything bad of you, on my account. (Mt. 5: 11)	Blessed are you when people hate you and exclude you and denounce you and spurn the name you bear as evil, on account of the *Son of Man.* (Lk. 6: 22)

CoNCLUSION: THE CoNTRIBUTION OF THE HEIDELBERG ADDREss

What this essay has endeavored to show is what Bultmann thinks of Jesus and the Christ with special concentration on

[76] *Ibid.,* p.

the issue central to the problem: Jesus's own understanding o£ his messiahship or lack thereof. As we have seen, Bultmann holds that all messianic statements about Jesus were attributed to him by the early Christian community. He re-affirmed this position in his latest essay on the problem:

> The greatest embarrassment to the attempt to reconstruct a portrait of Jesus is the fact that we cannot know how Jesus understood his end, his death. It is symptomatic that it is practically universally assumed that Jesus went consciously to his suffering and death and that he understood this as the organic or necessary conclusion to his activity. But how do we know this, when prophecies of the passion must be understood by critical research as *vaticinia ex eventu?* [77]

What can we say, given this presupposition, o£ the relationship between the Jesus o£ history and the Christo£ the kerygma? The Heidelberg Address was Bultmann's effort to elaborate and clarify his position on this aspect o£ the problem. Bultmann distinguishes the *historical continuity* between the historical Jesus and the primitive proclamation; and the *material* or *essential continuity* between the historical Jesus and the Christ o£ the kerygma. These are two distinct relationships, and, as Joseph Cahill has pointed out in an excellent summary and review article: " the answer given to the first question, that o£ historical continuity, is not at all necessarily an answer to the second problem, that o£ essential continuity." [78]

Bultmann does not deny the historical continuity between the historical Jesus and the primitive proclamation:

> The kerygma maintains that God has made the historical Jesus the Christ, the *Kyrios* (Acts 2, 26) . Or, orientating myself about the formulations of Paul and John, the kerygma contains the paradoxical assertion that a historical event-the historical Jesus and his history-is the eschatological event (the end of the age and what it implies). It is therefore obvious that the kerygma presupposes the historical Jesus, however much it may have myth-

[77] *PKHJ,* p.

[78] **P.** Joseph Cahill, S. J., "Bultmann and Post-Bultmann Tendencies," *CBQ* XXVI (1964) , 166.

ologized him. Without him there would be no kerygma. To this extent the continuity is obvious.[79]

But on the level of material or essential continuity, where the relationship between the contents of the works of Jesus to the content of the kerygma is investigated, Bultmann maintains his former position. " The historical-critical method is incapable of showing that God has made Christ the Lord." [80] As Bultmann has written:

Paul and John, each in his own way, indicate that we do not need to go beyond the " that." Paul proclaims the incarnate crucified, and risen Lord; that is, his kerygma requires only the "that" of the life of Jesus and the fact of his crucifixion. He does not hold before his hearer's eyes a portrait of Jesus, the human person, apart from the cross (Gal. 3, 1) , and the cross is not regarded from a biographical standpoint but as saving event. The obedience and self-emptying of Christ of which he speaks (Phil. 6-9; Rom. 15: 3; II Cor. 8: 9) are attitudes of the pre-existent and not of the historical Jesus. The eschatological and ethical preaching of the historical Jesus plays no role in Paul. John gives all due emphasis to the humanity of Jesus, but presents none of the characteristics of Jesus' humanity which could be gleaned, for example, from the Synoptic Gospels. The decisive thing is simply the " that." [81]

With the exception of the clarifications provided in the Heidelberg Address, I do not think that Bultmann's position has changed significantly during the years of his writing career. The case stands on the merits of its arguments.

JEFFREY G. SOBOSAN, C. S.C.

Moreau Seminary
Notre Dame, Indiana

[79] *PKHJ,* p. 18.
[80] Cahill, *ibid.,* p. 167.
[81] *PKHJ,* p. 20.

DIVINE FOREKNOWLEDGE AND FREEDOM: A NOTE ON A PROBLEM OF LANGUAGE

RECONCILING DIVINE foreknowledge with human freedom has been a problem for philosophers and theologians of every age, but one of the most interesting treatments of the problem in recent years has been by Anthony Kenny, a fellow of Balliol College (Oxford), whose analysis of the language of St. Thomas Aquinas in this regard was originally presented at a conference in Liverpool in 1960 and more currently, in an article entitled "Divine Foreknowledge and Human Freedom." [1]

Kenny concurs with Aquinas in that there is no incompatibility between human freedom and divine foreknowledge, and he approves the view of Aquinas that the classical objection, " Whatever is known by God is necessarily true," is based upon an equivocation, since the term " necessarily " may refer either to what God knows (something which may be necessarily true) or to the nature of his knowledge (and whatever God knows is, necessarily, true) .

Kenny feels, however, that the answer which Aquinas gives to another problem is not satisfactory at all. The proposition analyzed by Aquinas is" If it has come to God's knowledge that such and such a thing will happen, then such and such a thing will happen." [2] Understanding Aquinas to rely on the principle that " an event is known as future only when there is a relation of future to past between the knowledge of the knower and the happening of the event" [3]-and God knows all events as present -Kenny concludes that disastrous consequences follow upon

[1] *Aquinas: A Collection of Essays.* Edited by Anthony Kenny (London: Macmillan, 1969), pp. 255-270.

[2] *Summa Theol.,* I, q. 14, a. 13.

[3] Kenny, *loc. cit.,* p. 261.

such a concept of foreknowledge, because it forces one to deny that God knows future free actions in an authentic sense since he knows them as already present. To know the future, Kenny insists, means more than to know a fact which comes later in a time series than some other fact. One might know that the War of Roses took place later than the invasion of Egypt by Caesar, but knowing this as a future event, Kenny observes, hardly constitutes authentic knowledge of the future.

" The whole concept of timeless eternity," Kenny writes, " the whole of which is simultaneous with every part of time, seems to be radically incoherent." [4] Simultaneity, he continues, is a transitive relation. If A happens at the same time as B, and B happens at the same time as C, then A happens at the same time as C. In St. Thomas's concept of a timeless eternity, Kenny believes, all things would happen simultaneously, so that the great fire of Rome would happen at the same time as the bombing of London by the Luftwaffe.

Kenny's own analysis of the problematic proposition described by Aquinas is highly interesting. Seemingly based upon the axiom that whatever is implied by a necessary principle is itself necessary, the argument runs: "It has come to God's knowledge that such and such will be the case. As a consequence, it necessarily follows that such and such will be the case."

The initial proposition," It has come to God's knowledge that such and such will be the case," is necessarily true since it refers to a past action. " Such and such will be the case " must then follow necessarily. As a consequence, if God knows any future event, that event cannot be contingent since it follows upon divine knowledge of what is necessary.

Although it appears incontrovertible that what follows from a logically necessary proposition is itself necessary, Kenny questions whether it can be said that all propositions in the past tense are necessary in the sense that they would exclude even the freedom of the action they report-if they report a free action. If one says, for example, that the proposition " Cesare

• *Ibid.,* p.

Borgia was a bad man," is now necessarily true because it refers to the past, it does not follow from this alone that it was necessary when Borgia was born that he *would* be a bad man.[5] In other words, the necessity of the action reported by such a proposition is a necessity consequent upon its simply having taken place. The radical freedom of the action itself is not affected.

It seems then, Kenny concludes, that there is no reason to maintain that" It has come to God's knowledge that such and such will happen" is a necessary truth merely because it is past-tensed. Its necessity might be said to be a " factual " necessity rather than a logical necessity. Hence, the conclusion of the argument does not follow, namely, that such and such an action (in this case, a free event) must happen. As a consequence, the problematic proposition has no tendency to show ·that human freedom and divine foreknowledge are incompatible. The difficulty can be resolved without resorting, as Aquinas did, to the concept of "presentiality," whereby God is described as knowing all events in the present-a concept which seemingly gives rise to hopeless contradictions.

But does it? First of all, one must admit that to know the future means more than to know a fact which comes later in a time series than some other fact. As Kenny ironically suggests, simply because someone knows now that the War of Roses took place later than the invasion of Egypt by the Romans does not constitute sufficient grounds for saying that he knows the future. But the absurdity of speaking of the War of Roses as a future event inasmuch as it comes later than the invasion of Egypt arises largely from the fact that both events are known as past events by a contemporary observer. In the theory of Aquinas, however, the perspective is essentially different, as the example he gives (cited only partially by Kenny) indicates rather impressively.

In his example[6] Aquinas says that one who stands at a point

[5] *Ibid.,* p. !65.

[6] *De Veritate,* q. i, a. li; cf. *Quodlib.* XI, q. 8.

on a road and sees the travelers pass him one by one knows them all in succession and he knows them successively. One who watches the same procession from a hill-side also knows them as they are in succession, but he knows them with one glance and not successively. Similarly, what a human observer speaks of as being in the future is some event which he has not experienced. A divine observer (who is above and outside of time) can also be said to know an event as future because it is known in its temporal relationships and it has not yet been experienced by some human observer in time. " For what is seen by God," he writes, " is indeed future to some other thing which it follows in time, even though to the divine vision, which is not in time but outside time, there is no future but present." [7]

Kenny finds, nevertheless, that to place God's knowledge in the present is to invite insoluble problems: "We should have to say that God knows that a man ' *is landing* on Mars,' but we cannot say this, since the statement that a man is landing on Mars, being false, cannot be known, even by God, to be true." [8]

This example, however, falls somewhat wide of the mark, for it misconstrues the theory of Aquinas by ascribing " present-ness " to an event, rather than to the manner in which God is said to know the event.

The root of the problem is perhaps best expressed when Kenny writes, "The whole concept of a timeless eternity, the whole of which is simultaneous with every part of time, seems to be radically incoherent." [9] In Kenny's view simultaneity means the condition of " happening at the same time as "– and he seems to consider that if God knew things simultaneously, he would know them as all happening at once. Referring to Aquinas, he writes: "On his view, the great fire of Rome is simultaneous with the whole of eternity. Therefore, while I type these very words, Nero fiddles heartlessly on." [10]

• *Ibid.*
• Kenny, *loc. cit.,* p. !263.
• *Ibid.,* p. 264.
[10] *Ibid.*

Admittedly, of all the notions derived from time, the notion of simultaneity is one of the most difficult. It is sufficient to note now that simultaneity does not belong to events in themselves; for two events, seen as being simultaneous by one human observer may be seen as taking place successively by another, making his measurements from a different perspective. But both observers would be a part of a particular spatio-temporal situation. The simultaneity, however, which Aquinas refers to in this context is part of the definition of eternity derived from Boethius: " Eternity is the simultaneously whole and perfect possession of unending life," [11] and Aquinas explicitly understands the term " simultaneous " in this context, not as meaning " at the same time as " but as eliminating the idea of time entirely.

" Two things are to be considered in time," he writes, " time itself, which is successive, and the 'now' of time, which is imperfect. Hence the expression ' simultaneously whole ' is used to remove the idea of time; and the word ' perfect ' is used to exclude the 'now ' of time." [12]

Thus when Aquinas asserts that God sees all events simultaneously, he does not mean that he sees them all happening at the same time. The term " simultaneously " refers to his manner of knowing them in one intuition-not to what is known by that inituition. It is interesting to note that Aquinas is reluctant to use the concept of" now" in explaining eternity, event though many believe that" now," being neither past nor future, has a certain timelessness and, as a consequence, often use it to describe eternity. But to Aquinas-as to Aristotle- " now " is radically imperfect and cannot be understood apart from the concept of time, since " now " belongs to the past as its term and is part of the future as its principle. [13] Time itself might even be said to be constituted by the" flow of the now." [14] But the " now "which is proper to eternity and to divine knowledge is utterly timeless. The " now " of time can be used, he

[11] *Summa Theol.,* I, q. 10, a. 1, ad *5.*
[11] *Ibid.*
[18] *In IV Physic.,* lect. 21.
"Summa Theol., I, q. 10, a. 4, ad 2.

indicates, only as an analogue of the "now" of eternity insofar as the "now" of time reflects in some manner the indivisible unity of a subject. [15]

This leads us to the final point, namely, the " presentness " or, as it often called, "the presentiality" of divine foreknowledge. As Aquinas uses this language, the term " as present " in the proposition "God knows all events as present" is not intended to refer to the events, as though all events were known by God without their proper temporal relationship to each other. It does not mean either (in the theory of Aquinas) that God knows all events at the present time, i.e., in 1972, for God's knowledge is outside of time.

What, then, is to be understood by the proposition " God sees whatever happens in time, not as future, but as present"? In the key passage, cited by Kenny, in which God's foreknowledge of future free events is treated, Aquinas notes that a contingent event can be considered in two ways: first, in itself, insofar as it is already in act, " And in this sense it is not considered as future but as present and thus can be infallibly the object of certain knowledge." Or a contingent event can be considered " as future " and indeterminate; but in this way a contingent event cannot be known with certainty, particularly if such an act is a free act. [16] Thus it is primarily to signify that God knows the determinate nature of the free contingent act or event in itself that Aquinas speaks of him" knowing contingent events as present "-not to signify that divine knowledge has some temporal dimension, as though God were somehow carried along by the stream of time, knowing " now " or at present what others know only later. When studying this highly structured theory of divine foreknowledge, one should remember too that for Aquinas all events are known in the divine essence by a timeless intuition. One may say, then, that the proposition " God sees whatever happens in time, not as future, but as present " means simply that through the medium of the divine essence God sees and therefore knows in one unchanging com-

[10] *Ibid.*

[18] *Ibid.*, a. 18, c.

prehensive intuition all events that ever take place at any time according to the successive order in which they occur in time-as well as the necessary or contingent manner in which they follow from their own proper causes in time.

Kenny's analysis of the language used by Aquinas and Kenny's study of the perplexing proposition "Whatever is known by God is necessarily true," as well as of the related argument based on the principle that whatever follows from a necessary proposition is itself necessary, are highly valuable studies and good examples of the kind of clarification which this type of linguistic analysis can bring. But the embarassments which he apparently feels are involved in Aquinas's concept of presentiality seem to be avoidable if care is taken to eliminate all considerations of time from any predicate applied to the divine essence, which is timeless, reserving temporal adjectives and adverbs for what is known as being in time.

R. W. MULLIGAN, S. J.

Xavier University
Cincinnati, Ohio

BOOK REVIEWS

Knowing The Unknown God. By WILLIAM J. HILL, O. P. New York: Philosophical Library, 1971. Pp. 807. $12.00.

We have here an excellent contribution in one of the most important areas of theological thinking today. The issue is the validity of our ideas about God, a central point in theological discourse. For anyone who has ventured into this area it will be clear that there is, in the words of the prophet, " terror on every side "; every position one takes is a challenge to one's knowledge of the whole history of theology and philosophy, not to mention the coherence that is demanded with all the big questions and answers that bear on the matter: the validity of human knowledge especially in its attainment of the transcendent, the structure of human consciousness, the meaning of faith, revelation, and all the rest. With this kind of problem Fr. Hill has done extremely well. He has controlled an immense amount of material, historical and theoretical. He keeps to his point, yet the ample notes show that all the necessary spade-work has been done. In general, this is a Thomistic book, but in no narrow sense: the author is continually in dialogue with all the leading names in modem and ancient theological debate, with Cajetan as well as Merleau-Pony, with Dewart and Lonergan along with St. Thomas.

One of the pleasing features of this work is the neatness with which the question is formulated and kept before us. It requires a capacity for precision which one does not find in the large number of writers who have ranged over this matter. Fr. Hill sees the conceptual element involved in all human knowing; but since a direct concept of God is an obvious impossibility in the present mode of human knowledge, what value attaches to the ideas we employ in our speaking about God? To situate our theological attainment of God in a purely non-conceptual dynamism of knowledge is a rather congenial temptation in our ecumenical and existential times. However the question will not go away, and theologians at least have a vested interest in somehow maintaining that one thought is not as correct as another, nor one word as accurate as another in serving the truth of the Mystery that is certainly beyond us.

The author adds considerable precision to the question by an excellent treatment of that increasingly interesting figure for modem theology, Cajetan (Thomas de Vio). In many ways this speculative genius is the founding father of the Thomistic Tradition: his *de Nominum Analogia* continues to be one of the classic texts in the discussion of our knowledge of the Transcendent. Fr. Hill justifiably points out that this man was not

the culprit in giving Scholasticism its static and conceptualist reputation in a way that Scotus or even Suarez might have been. He reacted against the univocity of Scotus with the whole weight of his teaching on analogy, and at the same time he was sensitive to existence as the " ultima actualitas " and the supra-categorical nature of the divine Reality (here we refer to his Commentary on *Summa Theol.*, I, q. 89, a. **1,** no. VII). He tried to bring these points together: the analogical concept was a true formal expression of the divine reality, yet there was no possibility of expressing the divine mode of being. This is exactly the point where Fr. Hill discerns the weakness in the Thomistic tradition on this matter. He asks if this " eminenter " is sufficient. **If** the divine *modus essendi* can in no way be represented in the concept, where does the formal correspondence between the idea and the divine reality lie? (pp. !t0 ff.) The concept must at least play some kind of referential role insofar as the divine Reality is somehow envisaged. But, he admits, the Scholastic tradition generally goes further than this. He gives some instances, especially in the divine nature-person problems, which indicate how the Schoolmen did in fact verge toward conceptualism and depreciate the sense of the Mystery they were in fact confronted with. Even though no reputable thinker thought they were expressing the reality " as it was in God," nonetheless Cajetan's proportionality schema of analogy tended to claim too much, especially when one returns to the more explicitly agnostic approach of St. Thomas himself.

The author asks whether the epistemological system in which these men worked did in fact have the tools to express positively what they surmised in a negative way. (p. For this reason, Fr. Hill himself takes up a study of the dynamic involved in our analogical knowledge of the Divine and seeks to situate the concept in the whole dynamism at work.

To show that this matter is no mere local problem he competently widens the scope of reference. His chapter on *Symbolic Relativism* isolates the general tendency to see the concept merely as some kind of symbol of the divine rather than as a formal expression of the divine Reality. Under this head he puts Maimonides, Sertillanges (a modern Thomist!), and, of course, the representative Protestant thinkers. The author seems to feel a genuine sympathy for the reaction shown by these men against " conceptual idolatry" in all its forms. However, he insists on raising his basic question, what real value do our ideas have?-A matter of considerable consequence when one asks such questions as " Is Christ God or not? " He is at pains to keep his approach open and flexible for he introduces at this point three cautions: **1)** there is no question of a conceptual representation of God as he is in himself; every concept opens out a new horizon of development; and 8) in every epoch there are areas of silence that the theologian must respect, aspects of the Divine Mystery that he can't do much about.

With this proviso he pushes ahead with his enquiry. Chapter *3* treats of one of the most vital developments in Catholic thinking, the transcendental turn in theological epistemology which owes so much to Marechal. After treating of Marechal himself, the author selects Rahner and Lonergan as typical examples of this new move; he then includes an interesting treatment of Schillebeeckx and Dewart, each in his way reacting against the Transcendentalists. Fr. Hill himself seems to evaluate the theory of Schillebeeckx most favorably because of the dynamism that comes from the objective intelligence itself rather than from a more subjective aspect of consciousness. Still, the author is not content with the treatment of the conceptual dimension that these authors give. He continues to ask what is the real bearing of our ideas about God: saving the validity of concepts by some extra-conceptual dynamism does not squarely face the issue. The author admits that these "... positions take Catholic thought irreversibly beyond the impasse of an earlier 'conceptualism'; they render the reconceptualization of God not only possible but necessary." (p. 109)

Chapter 4 is Fr. Hill's own personal effort at a Heideggerian *Wiederholung;* " St. Thomas Revisited " is not a textual study but an attempt to think through the best of Aquinas into the modern context. It is an excellent effort, flexible and alert, to represent the best of the authentic tradition. He expresses his fundamental hesitations about the direction of Transcendental Thomism. The apriori grasp of being seems gratuitous to him; the whole process seems to fall short at potential being rather than the universe of what is actually; also he finds that this approach does not sufficiently appreciate the cosmic and individual dimension of personal consciousness. (pp. 113 ff.) He is also careful to keep himself from the other extreme, that kind of total objectivism that remains unalive to the subject involved in all knowing and :finds itself splintered into reconcilable multiplicity save for its dogmatic awareness of divine causality.

He suggests that we read the famous " separatio " text from the *De Trinitate,* q. *5,* a. *3,* in a more ample context. Here he concludes that the " separatio " that occurs regarding the act of existence amounts to an intuition of being at the very heart of the abstractive process. Such *abstractive intuition* is the true dynamism of the intellect, though it does not affirm the reality of its object out of a projecting subjectivity. It intuits the real being of the existents. (pp. 116 ff.) The trans-conceptual dynamism of all intellection assures its termination at the real and the actual. Hence the author feels that this abstractive intuitionalism cuts quite against that kind of essentialism that centers the knowing process on he concept, as though reality were intelligibly exhausted at that point.

In the instance of affirming God a strictly formal significance can be maintained in our concepts, while the orientation of our knowing is still toward the ineffable divine Being. In other words, Fr. Hill points to the

valid content in our concepts, even though in the dynamic of analogy they point beyond themselves to the divine Reality where the formal perfection they indicate is verified in a non-finite inexpressible way. Judgments about God, made in the dynamism of analogy, indicate a manner of speech and a movement of thought that fall in with the whole structure or reality, in that it derives from God and exists in its relatedness to him. The recognition of this is the radical explanation of why the appropriate ideas can be "expanded" in their term of reference: they express a perfection that is of itself not limited to a finite mode of realization, even though our immediate knowledge is linked inextricably with the finite verification: the infinite divine mode is always left unsaid, and unknown.

With a well-substantiated theory such as this Fr. Hill is confident that we have a valid starting point and structure for a genuine reconceptualization of God, less than sharp transformism, more a coherent evolution. The author cites Rahner, Lonergan, and Schillebeeckx as providing valuable insight into the pre-conceptual elements that would govern this process. (Chapter 5) He himself does not attempt to elaborate the matter personally.

The book concludes with Chapter 6, "The God Who is Known Conceptually." Here seven instances are given in modern theological thinking where a reconceptualization is taking place. It is clear that the theory governing the author's approach makes for all the necessary breadth and flexibility, though he does manage to stress the continuity of the evolution in our approach to the supreme Mystery of God.

Needless to say, we can barely indicate the strength and insight of the fundamental positions of this book. The work already done raises a good number of interesting questions that Fr. Hill is now in a good position to throw some light on. Could the author have made his start further back and set his problematic not only before Cajetan but even before Aquinas himself? It would seem that, until we close with Dewart's problems about the Hellenization of dogma and the transcultural process that is continually at work in an historical faith and knowledge, the final shape of the answers we need will not appear. Also, it seems to me that the author could have developed some of his positions a little more roundly with regard to the " Transcendental Thomist " approach. There is still room for a statement from him regarding the conceptual as an historical articulation of consciousness and as an aspect of the person-subject's identity in memory and hope. In other words, the self of the subject comes to a deeper awareness and self-presence in the realm of conceptual judgment: objective conceptual knowledge also assures the person of authentic self-hood. This point might emerge as of special consequence in regard to the traditional Thomistic question of " The Proof for the Existence of God."

Another point of potentially large significance is the manner in which

the conceptual is linked dynamically with the non-conceptual. Admittedly this was outside Fr. Hill's intention but it is an area that is affected by his conclusions. The non-conceptual is not completely pre-conceptual, nor necessarily does it come before the conceptual in order of time. It can be that in the very act of being most conceptual and objective in our judgments we are also enjoying an intensification of our non-conceptual knowledge. We usually tend to make it an eitherjor matter; so perhaps this work could have been more alert to some points here. The point was often mentioned that the concept is not limited in its reference to the finite modes of verification. But the complexity and richness of the dynamism at work is not evident until we see that " the finite mode " can often be assumed by the knowing person as a dramatic symbol of the divine. In other words, to use Cajetan's terminology, the same finite reality can be the ground for both intrinsic and extrinsic analogy, for both the analogy of improper and proper proportionality. The concept and the image go together in full human knowing; and here lies a potentially fruitful area in Thomistic reflection on our knowledge of God.

Perhaps a little strangely, the theology of the secular is influenced by the Thomistic emphasis on the conceptual. In some degree it is the ultimate point of the secularity of Christianity. At the same time as our "secular" concepts are admitted into a religious " use " to describe a transcendent reality, they remain historical notions that are looking for an historical verification, in hope. It seems that the recent thinking on " future-trancendence " in the style of Metz and Moltmann could find some fundamental principles in the field that Fr. Hill has covered. Finally, it is unlikely that the Protestant tradition is going to accept the seriousness of the conceptual content of theological thinking until this has been fixed in the reality of the Incarnation itself, as an aspect of the objectivity and fulness of the divine Presence in history. Some elaboration of the last point would have made the impact of this book even stronger.

All in all, this is an excellent book, the kind of study that Catholic theology needs today. It introduces a fresh starting point for some big theological issues. Fr. Hill shows the power and assimilative ability of modern Thomism and has himself lived up to what he aimed at," to remain faithful to what he has been, to take up everything again from the beginning."

ANTHONY J. KELLY, C.SS.R.

Redemptorist Community
Kew, Victoria
Australia

Theology and Metaphysics. By JAMES RICHMOND. New York: Schocken Books. 1971. Pp. 156. $6.50.

It is a long reach of history from St. Bernard inveighing against Abelard to Barth and Bultmann dismissing any role for reason and history in theology as" works righteousness." Nevertheless the temper of mind is the same, and it continues as the dominant one in contemporary Western Christianity. Newman gave voice to this attitude, at once skeptical and fideistic, in moderate and widely accepted terms as a preference for the wisdom of the heart: " I am far from denying the real force of the arguments in proof of a god, but these do not warm me or enlighten me: they do not take away the winter of my desolation, or make the buds unfold and the leaves grow within me, and my moral being rejoice" *(Apologia pro Vita Sua,* pp. It is precisely this theme, this disinclination for anything resembling a natural theology, that James Richmond sets himself to explore critically in a study whose title he has filched from Albrecht Ritschl *(Theologie und Metaphysik,* 1881). The work is set out in numbered paragraphs reminiscent of Wittgenstein's two published works, a procedure that emphasizes its overall structure as a carefully reasoned argument in favor of theistic evidences.

It is difficult to resist for long the assumption that, without natural theology of some sort, less than full justice can be done to Revelation as a human phenomenon, as an " event " which, though originating with God, occurs only within man's world of meaning. Still, the ventures of contemporary thinkers have, if anything, seemingly resulted in fresh " evidences " for anti-theism. Anthony Flew's complaint is strongly felt that somewhere along the line there occurs an unexplained " leap " from empirical data to non-empirical Reality. The contention towards which Richmond works is that syllogism and fideism are not the sole alternatives: that a middle ground lies available with "reasoned beliefs" (N. B., a not dissimilar attempt has been made by Francis Parker in his published Marquette lecture, *Reason and Faith Revisited)* .

The opening wedge in the new direction the discussion has taken in Anglo-Saxon circles (where the discussion has been most attentive to the demands of logic) was supplied by Wittgenstein's later contention that meaning in religious discourse is determined by use. This at least enabled theists to contend that their God-talk was not devoid of meaning simply because of an impossibility of applying the Positivist principle of verification. To acknowledge then that a statement cannot be verified by empirical observation (granting that it is intended existentially and not as a mere proposition for logical analysis) is not to dismiss it as meaningless-as merely verbal, emotive, or nonsensical. Subsequent thinkers, like John Wisdom, were able at this point to take the all-important next step, suggesting that such usage could only arbitrarily be dismissed as subjective

and could in fact have an objective ground in trans-subjective experience. This was a beginning of restoring to religious discourse not simply meaning but truth value. To this Richmond further appends Wisdom's observation on " the sheer quantity of *inescapable, significant human situations* which cannot be handled in experimental and observational terms " (p. 54) – a dimension of human existence by and large neglected as a source of understanding and truth.

But the problem now is the construction to be put upon such life-experience. The difference between seeing such experience as theistic or as atheistic clues-thus the difference as to whether or not god exists-is like the difference as to whether or not there is beauty in a thing. It is either there or not, and is either seen or not. Beauty may well be in the eye of the beholder, but this is not to maintain that the beholder bestows upon the object a quality it nowise has of itself. The set of facts is the same for all, the interpretations are quite different. Yet this is due to neither rational deduction *from* the data nor to purely subjective factors either. Somehow or other, a pattern of meaning emerges *from within* the data experienced. As a possibility Richmond adverts to Wittgenstein's epistemological technique of " connectives " or " disconnectives," i. e., a cognitive recognition of relations between the complex data experienced which serve either to induce an attitude that is lacking or to reduce an attitude which is inappropriate. This is a procedure not entirely unlike Lonergan's play of " insight " in the mind's innate heuristic drive towards understanding. Basil Mitchell carries the discursus further by putting it into the context of history, specifically that which centers on the Incarnation, and introducing the element of "trust." (p. 74) Mitchell alters Wisdom's famous parable-two men find an apparently tilled garden in the wilderness; is this evidence for the existence of a gardener or not?-to one of a partisan, who precisely through trusting a stranger, finds him in fact to be benevolent. But why does Mitchell's partisan interpret the stranger as he does, namely, trustingly? Clearly, recourse has to be had here to a non-cognitive, i.e., to a volitional element. Here experience has been broadened out not only to include an interpretive element (John Smith: *Experience and God)* , but to where the experience is a " situation within which the interpreter is himself inextricably involved as a constituent ... " (John Hick: *Faith and Knowledge,* cited on p. 85). Seemingly, this is to subtly enlarge the argument, an enlargement that becomes more explicit in John Hick's position that *faith* is the interpretive element which enables an experience to be in fact religious. At this point, something of what Richmond intends by the term "natural theology" becomes clearer. It is not philosophy surmising dimly the reality whom the Christian will name as God; it is an act of the believer finding a rational basis for his faith in his experience interpreted in the most fully human way.

But all these are parables, offering " a bare, formal, suggestive but rather abstract and symbolic *model* for the formulation of (such) a natural theology .... The major and formidable task which now faces us is to translate these parabolic symbols into the kind of non-parabolic and non-symbolic detailed evidences which have their proper location within a concrete natural theology . . . to show that theism is not merely a possible, but also an illuminating and compelling theory which integrates all of our experience into a rational unity." (pp. 86-87) This is what Richmond attempts in the final two chapters of his book: "Theistic Evidences" and " The Theistic Conclusion." He finds, in all, five distinct areas wherein such evidence presents itself: (1) religious experience, (2) moral experience, (3) human *Existenz,* (4) history, and (5) nature. The common note is that in all these areas " experience throws us beyond the empirical towards an explanation which is ultimate and absolute in the sense that *beyond it we cannot go* .... " (p. 112) It is an experience of the world as "pointing towards, derivative from, and dependent upon a transcendent, personal, creative ground." (p. 113) Are these the cosmological and teleological arguments in the costume of modernity? Richmond agrees that the insights are the same but insists strongly that such insights are incapable of syllogistic formulation. (p. 109) Any such attempts are "misleading," have been " deservedly thrashed by Hume and his disciples." He approves, with an uncharacteristic lack of critical acumen, Anthony Kenny's contention that "criticisms of the moves inherent in the first three of St. Thomas's *Five Ways* ... have accumulated devastatingly." (cited on p. 108)

Thus, Richmond comes to his most positive contribution (enriching the suggestions of I. Ramsey, C. B. Daly, G. E. Woods and others): an approach to. the God-hypothesis in terms of the way in which we come to know other personal selves. Granting that the ego is not directly observable, one need not give way to Hume's skepticism or A. J. Ayer's outright denial (in *Logic, Language and Truth,* at least) that the self is knowable at all. It remains possible to allow an experience of the self as non-observable, as long as the self be recognized not as a thing or object that can be perceived but as " the I coexisting with and involved in every experience " (I. Ramsey), as that which is "never a *cogitatum* since it is the irreducible subjective *cogitans."* (p. 140) This is what Phenomenology knows as the Transcendental Ego in distinction from the Empirical Ego, something "transcendent, non-empirical, abiding (permanent) , non-spacial (boundless), non-temporal (timeless)." (p. 142) Once again, the dialectic at work here betrays certain structural similarities with Transcendental Thomism, e. g., in the move back into the *a priori* structures of mind or spirit without which all experience would be impossible.

When this experience of pure subjectivity is carried further into the experience of inter-subjectivity, then some analogy for the discernment of

God may well appear. Acknowledging God then" might be compared with the way one knows the soul or mind of another creature." (Wisdom, cited on p. 145) What has to be borne in mind is that a plurality of personal selves, in this transcendental sense, lies beyond perception and is not observable; it is achieved only in that exercise of freedom whereby the "other" discloses its own identity, in short, in the act of" revelation." This, of course, was Husserl's reply to the charge of solipism-because the Transcendental Ego is experienced not only as pure subjectivity but as intersubjectivity, it is the receptive center of such self-disclosures by other Egos. But even if we may say " transeat " to this, are we in fact thereby affirming God? Is not this only a " god of the gaps," one more " ontological myth," only the positing of a logical construct, of what Ramsey calls an "integrator symbol"? Richmond's reply to this calls attention to a veiled fideism in this charge which would constrict all experienced clues to God within the ambit of a highly private and non-objectifiable faith experience of the living God that can be discussed only *from within* the sphere of commitment (the long line from Luther to Bultmann). He then writes: " by the term ' God ' Hebrew-Christian belief intends not merely a ' transcendent source of grace,' but also that being who integrates all finite things-the being in whom all things inhere. It intends not merely the divine pole of the religious I-Thou encounter, but also that being who is the Prime Unmoved Mover of all that moves and lives, the First Uncaused Cause of all finite existence." (p. 151)

My own assessment of Richmond's effort is a positive and even enthusiastic one. It does point up graphically the failure of the strict Empiricism which has held sway in Great Britain since David Hume to do justice to the full range of human experience. At the same time, there is a clear refusal to surrender the empirical anchorage which might reintroduce the spectre of Idealism, or Rationalism, or Conceptualism. All that the author asserts has its solid rooting in experience, experience in the enriched sense of the word given to it by John Smith *(Experience and God)*. Advantageously too, the experience in question is not the special *religious* experience of e. g. William James but ordinary and universal experience insofar as such manifests a religious dimension. This enables Richmond to put aside considerations of a special religious language in favor of a religious use of ordinary language (as Langdon Gilkey did so successfully in *Naming the Whirlwind).*

More concretely, the way man can come to know the community of other free persons through reflection on the inter-subjectivity of the Transcendental Ego does, I believe, supply a valuable analogy-both as supportive for the God-hypothesis in the first place and as a *theological* instrument for articulating the content of Revelation. In this one can find a needed complement to the failure on the part of Classical Metaphysics and Medieval Scholasticism to appreciate the distinctness of the personal realm:

it makes possible a sort of mental diastasis, i. e., a separating without fracturing of factors that are in actuality never separate.

But, at this point, the project comes to an abrupt halt, and it is here that my sole negative reaction to the book is lodged. What seems short-circuited is the movement forward into the realm of *thought*, not as the mere non-completion of the book but as something not allowed. Everything stops short of philosophy and metaphysics, and we are left only with a prologomena, albeit a good one. In the end, Richmond's "post analytic natural theology " is fearful of venturing too far from its parent, from analysis philosophy. The most that can be sought are explanatory models. The metaphysics that Richmond would wed to Revelation is in the final analysis " logic," a therapeutic analysis of the way we use words, which contends with Wittgenstein that thinking not only involves speech but *is* speech. We are left with analytic talk about talk and never succeed to discourse about reality. But is there not an *a priori* structure to human being as intelligent, something activated only through experience and exercized only upon what is there " given," but which is more than an interpretative grasp of experience? Something which, while unable to start other than from experience, has a constitutive role to play in knowing and rules over experience in accord with the rules of being? Do not the attempts of Richmond and others to investigate the linguistic origins of metaphysics lead, in fact, to the opposite discovery that metaphysics is the creative ground of language? The force that lies in the argument of Richmond's book is that, while it leaves this latter country of the mind unexplored, it nevertheless brings us to its very frontiers.

WILLIAM J. HILL, O. P.

The Catholic University of America
Washington, D. C.

Being, Nothing and God, A Philosophy of Appearance. By GEORGE J. SEIDEL. Assen (The Netherlands): Royal Van Gorcum Ltd., 1970. Pp. 118. Hfl. 16.

In this, his most recent book, Father Seidel presents his own account of the nature of metaphysics. It makes for heavy reading, not only because of the inherent difficulty of the problems treated but also because, as the author himself allows, the style is " at times overly ponderous and technical."

The subtitle of the work, *A Philosophy of Appearance,* is aptly chosen, for the primary aim of the study is the development of ontology from an analysis of the appearance of being in things. Without having explicitly

committed himself to the task, Father Seidel seems to be attempting to bring to completion Heidegger's transcendental phenomenology. Seidel leaves the reader with the impression that by carefully picking his way one can manage to break fresh forest trails beyond those blazed by Heidegger himself. Seidel seems confident that the faithful extension of the phenomenological inquiry to its natural limits can lead to the headwaters of being.

The work is divided into five parts rather unequal in length. The first, which is an introduction into the nature and function of philosophy, seeks to establish philosophy as "a synthesis between science and theology." The second part, really the core of the book and constituting approximately one third of its length, discusses being and its relation to things, and to truth. The third part provides a thumbnail sketch of the history of "nothing" from the Pre-Socratics through Heidegger. In all, seventeen philosophers or schools are treated. While the sketches have historical interest, they are not essential to the main argument and might better have been relegated to an appendix. The fourth part discusses " nothing " and *its* relation to things, being, time, and non-being. The fifth part turns to the problem of God. Here the author indicates why his philosophy of appearance leads to the existence of God and briefly alludes to some of the divine attributes, viz., timelessness, goodness, personality, transcendence, etc.

A brief, adequate summary of this work does not seem possible. Too many intricate problems are broached and treated, and the elusiveness of an ever technical terminology made more elusive still by the abundant use of metaphor makes the identifying of issues difficult and their tidy definition almost beyond reach. Consequently, this review will confine itself to the central issues raised, employing only as much of the technical vocabulary as is deemed essential to convey an accurate idea of the author's thought.

Crucial to Seidel's analysis of being is the distinction between what he calls the phenomenal and noumenal aspects of the thing. The phenomenon is "the thing that appears," (p. 18) and the thing that appears " represents the appearance of being." *(ibid.)* For Seidel, the noumenal aspect of the thing that appears are those dimensions of it which underlie the appearance but do not themselves appear. The noumenal thus signifies negativity, nothing (no-thing) . Seidel finds in the noumenal the key to an understanding of being, and the entire analysis which follows is inseparable from the " nothing " aspect of the being which appears. The reader is well advised to mark at the outset that the noumenal has more than one meaning, for it can, according to context, mean ignorance, the unknown, potency, matter, essence, nothing, and non-being.

The noumenal aspects of being are radically separated into essential and existential. The essential noumenal aspects are the determining char-

acteristics of the appearing thing that do not yet appear. They represent that which is yet to be known about any particular thing. (p. 17) Hence "from an essential point of view the noumenal is simply ignorance." (p. 17) The existential noumenal, on the other hand, refers to the totally trans-phenomenal dimension of the appearing thing, i. e., to that which not only does not appear but which cannot appear because, if it appears, everything must disappear. The existential noumenal reveals itself by the fact that "... since there is no such thing as pure appearance, the thing must actually exist beyond the phenomenal, which in its complete appearance, is literally nothing. This means that the thing lies beyond the phenomenal existentially as well as essentially." (p. 13)

These distinctions behind him, Seidel is now prepared to present his definition of a thing (a being). He views it as "an essential and existential relation between phenomenon and noumenon." (p. 35) Hence " it stands between appearing and nothing, *essentwlly,* and between appearing and non-being *existentially.* This definition or description refers to the "ontological structure of the thing, whether living or non-living." (p. 82)

Being, "which does not appear," (p. 37) and which accounts for "the difference between being and nothing" (p. 38) is then seen to be "The existential relation between phenomena (the pure becoming of being and non-being), and noumena (the non-being of nothing that does not appear)." (p. 37) Being is viewed as necessary for the being of the thing, for "... if there were no-thing being, there would be no being." *(ibid.)*

The foregoing analysis of being and appearance leads Seidel to view both being and truth as trans-phenomenal. " Being lies beyond the phenomenal since it is constantly forcing its way beyond pure indeterminate becoming to be something," (p. 42) " Truth must also be beyond the phenomenal." (p. 43) But its trans-phenomenality differs from that of being. "The becoming of being approaches the phenomenal from the direction of the noumenal. Truth approaches the noumenal from the direction of the phenomenal." (p. 43) Because man is a being " whose being is trans-subjective to himself" the meeting of truth and being can occur, (p. 43) and when it does, it is an occurrence which is both trans-temporal and trans-spacial. " For man is at least one instance in being where the moment of truth actually does take place, where the converging lines of the directions of being and truth meet in a moment which is independent of the moments of time and places in space.... " (p. 43)

Though Seidel's language is similar to that of Heidegger and there are obvious similarities regarding the manner in which he explicates being and Dasein, Seidel does not accept Heidegger's apparent temporalization of being. Though he emphasizes that one may show that the being of Dasein is temporal, this does not necessarily mean that being itself is temporal, for there is more to being than the being of *Da:Jein.* (p. 76) Being for

Seidel is trans-temporal because it is not subject to change, and this applies even to the being of the thing. " For being to change, it would have to become something other than it is, that is, non-being." (p. 84} Yet the thing is temporal because of its noumenal nothingness which controls its appearance as a thing and hence is the ground of time. (pp. 85, 86} The noumenal nothing, which is " the relation of separation between being and the thing " (p. 88) is "... the weak link in the chain of being's appearance as a thing." (p. 85) Yet the timelessness of the being which appears is *relative, not absolute,* for it does depend for its appearance on the noumenal nothing of the thing. (p. 88}

Seidel next argues that since " nothing is the ground of the relative temporality of the thing," " non-being " would seem to be the ground for its relative timelessness." (p. 90) He then concludes that "time is the difference between nothing and non-being" (p. 90} where non-being is taken to mean nothing in the unqualified sense.

At this point in his study Seidel reveals what for .him is the key to the ontological problem of being, truth and temporality, viz., the distinction between *nothing* and *non-being,* and he is explicit in his claim that this is a distinction philosophers have generally overlooked. (p. 90} Earlier he had complained that St. Thomas ". . . makes no distinction between non-being and nothing." (p. 68)

In concluding his study Seidel turns to the problem of God. It is probably only here that the reader will begin to feel he can fit together the pieces of Seidel's analysis since the questions now raised bring the whole matter into sharper focus. No philosopher, it seems, can discuss the God-problem without unveiling the entire skeleton of his synthesis. The terminological screen must be drawn back. Precision of expression is here the price not only of clarity but of intelligibility. The philosophical theist cannot separate his ontology from his theory of self-subsistent being, and the application of the former to the theistic dimensions of being provides a most helpful laboratory to the interested onlooker.

Seidel is definitely a theist. He accepts the traditional predications the theist makes of God, i.e., that he is good (p. 102); above time (p. 100); free (p. 102); loving (p. 102); personal (pp. 100, 102-8), transcendent, and somehow the ground of beings and things whose being peers out from the totality beyond the existential noumenal, non-being. For all that, there seems ample reason to question various aspects of Seidel's philosophy of appearance, not so much the conclusions he has reached as the methodology he has employed in reaching them. Put in the briefest terms, the problematic, as this reviewer sees it, is whether or not the methodology of Heidegger can provide for an authentic philosophical theology. Seidel apparently thinks that it can, but there are several disquieting symptom!! which begin to appear in his discussion of the God-Problem. Spacial limitations require the briefest allusion to them.

First, God is never described as subsistent *esse,* or as that being whose nature it is to be, but always as the being that {who) "stands between being and non-being." (pp. 99, 103) Moreover, no mention is made of an analogy between beings and the being that stands against non-being {the existential noumenal) , nor does there seem to be anything in the analysis which could adequately ground an analogous approach to the problem of being in its full sweep. Added to this is the ambiguous employment of the word "exist." During the early chapters it was used in the Heideggerian sense of " to stand out from " and seems never to have been used to describe or refer to being. Yet in the concluding chapter God is now said to " exist," for if he did not" There could be no stand made against non-being." Now it may have been the author's intent to say that God exists only through the use of his own freedom, and that consequently he does not have to " Exist," i. e., take a stand against non-being, but if he does not, then why is there something rather than nothing and how is God defined: if he does, then how is he free in his stand against non-being? The reader is left to wrestle with this ambiguity which is so crucially related to the entire God-problem. A similar questionable development is found in the author's description of the transcendence of God. In discussing this point Seidel remarks that "... we are not dealing with a transcendence which, in standing against non-being, stands in favor of being." (p. 103) It is not really clear whether God *necessarily* favors the being of things in Seidel's view, or whether his primordial "stand" is neither for nor against them, i. e., that he does not " exist " in the Heideggerian sense.

Most perplexing of all, however, is the author's flat assertion that "... I exist just as much as does God, and the stone exists just as much as I do. Existence is the great leveler." (p. 98) But if "to exist" is *not taken* in the Heideggerian sense, one seems to have no alternative but to understand " exist " here as unequivocally applicable to God and all other things; on the other hand, if " to exist " *is taken* in the Heideggerian sense, Seidel does seem to be saying that God necessarily *exists,* i.e., necessarily stands against non-being and *in favor of beings.*

The steps whereby Seidel mounts from the being of things that appear to the being that is trans-phenomenal and stands against non-being are also not without their special interest. His approach seems to close the door to any knowledge of God through either participation or causality. He states quite clearly, "The model for emanation is drawn from light; that of causality, from physical processes, neither of being can be of much assistance in explaining the relation between God and the being of things." (p. 98)

His own argument for God's existence will focus upon time. "... if time is the distinction between non-being and nothing, and nothing accounts only for the relative temporality of being, but not for its relative timelessness;

and if, further, non-being cannot account ultimately for this relative timelessness (since it would be nothing more than an existential pole of being), then there would either be absolutely nothing at all or only a pure becoming, a pure and perpetual interchange between being and non-being without anything ever coming to be." (p. 97} In short, for Seidel "... if there is time: then there must be a God." *(ibid.)* It is difficult to see how this argument differs substantially from that of Aquinas's third way of contingency. Yet Aquinas's argument expressly appeals to "causality." If Seidel sees " causality " as irrelevant to explicating the relation between God and the being of things, serious questions arise as to the methodology he has employed in his argument and the true outcome of his reasoning. In what sense can he refer to his analysis as " ontological "? (p. If he claims to be proceeding phenomenologically, not only may one entertain doubts regarding the " nature " or *status* of the being which stands against non-being but one might even question whether one can in this fashion ever get beyond that which appears. There can be little doubt but that Seidel believes his truth theory to differ from one roughly describable as conformational. (p. 50) His discussion of the relativeness of human knowledge because of its constant state of imperfection and its consequent status of perfectibility leads him very possibly to minimize the danger of relativizing truth and to blur, in his own discussion of the problem, the difference truth as *relative* and the *relativism* of truth. " Relativism can be avoided only by recognizing its fundamental truth." (p. 53) Yet nowhere does Seidel refer to *judgment* as the reflexive terminal act of knowing. As often seems the case, critics of the " conformation " theory of truth give no meaningful alternative to such a theory and generally, after inveighing against it, simply continue to employ it in their own quest for knowledge. What seems ultimately involved here is the nature of the metaphysical method and the place of logic in the employment of that method. Throughout his analysis Seidel has given no indication of the nature of the methodology he employs in passing from the appearance of being to its disappearance in the " nothingness " which lies beyond non-being, and he seems to have separated reasons from causes by an unbridgeable gulf.

Finally, there are two statements regarding non-being, one referring to things, the other referring to God, which ought to seem odd to anyone viewing God as one whose nature it is to subsist. In the first of these there is a seeming positive quality or function attributed to non-being. According to Seidel, it is non-being which prevents the being of things from "falling back into God." (p. 99) The metaphorical aptness of this expression apart, non-being is thus viewed as though it were a something, and, by completely inverting ordinary usage, a return to non-being is equivalated with "a falling into God." Secondly, there is the unfortunate use of the expression " theoretically possible " when the author states that " It is,

of course, theoretically possible that God could posit himself into non-being." (p. 97) Perhaps what Seidel really means here is that one can formulate the statement, " It is possible for God not to be," but this is a long way from saying that it is " theoretically possible " that he might not be.

In conclusion, while the book represents a very concerted effort to deal with the most difficult problems of ontology, employing a contemporary terminology heavily interlaced with Hegelian and Heideggerian turns of thought, in the reviewer's opinion it labors under the defect of gnawing ambiguities which mar its development and final outcome. Much insistence is placed on the importance of the distinction between nothing and non-being as a point generally overlooked by philosophers and as, in fact, the most fundamental insight of the entire work. Yet " nothing " itself turns out to be only relative nothingness which is apparently identical with the potential principles already employed by Aristotle and Aquinas in their philosophical syntheses.

Perhaps one of the unintended pluses of the book, however, is the pointing up of the very real importance of employing a uniform terminology as well as one which avoids needless obscurity and maintains a respectable distance from the seductive ambiguities of metaphorical expression. Admittedly there is an exploitable shock value in the employment of new terms to make or emphasize a point, but it seems a tactical error to attempt to elucidate the most intricate and profound metaphysical problems through the use of metaphors so subject to ambivalent interpretation. There seems to be no need to speak of God as continuing" to stand against non-being."

JAMES B. REICHMANN, S.J.

Seattle University
Seattle, Washington

Man Becoming: God in Secular Language. By GREGORY BAUM. New York: Herder and Herder, 1970.

This book is Gregory Baum's tribute to Maurice Blondel as a Christian thinker whose writings at the turn of the century in large measure laid the foundations for much of the contemporary re-thinking of theology among Roman Catholics. In his famous 1893 doctoral dissertation *Action,* Blondel joined the heavy dialectic of Leibnitz and Hegel with a stress on affectivity and action encouraged in part by the study of Pascal, Maine de Biran, and Olle-Laprune. Throughout a work with all the rigor of *The Monadology* and *The Phenomenology of Mind,* he attempted to illuminate the way in which the very dynamism of human action forces man finally to a decision to open or close himself to a transcendent order of absolute

and infinite reality. *Action* was simultaneously a blow against the positivistic philosophy which would allow no transcendent reference for human life and against the Christian apologetics which forced the supernatural on men as a purely external demand. "The Letter on Apologetics" (1896) applied the philosophy of action to the task of apologetics, and " History and Dogma " (1903) confronted the challenge of biblical criticism as it appeared in Harnack and Loisy. In each instance Blonde! maintained that the subjective turn in philosophy after Descartes and Kant need not work against orthodox Christian belief and indeed that the extrinsicism of the standard apologetics made such belief irrelevant to any real exigency of the men who were to profess it.

Baum mentions Blondel's influence in *The Credibility of the Church Today* (New York, 1968) and *Faith and Doctrine* (New York, 1969), and anyone just vaguely familiar with the philosopher of Aix would recognize his impact on Baum's rejection of nineteenth-century apologetics and on his effort to construct a new apologetics pertinent to the present moment in those two works. But, whereas the earlier books make but passing reference to Blonde!, *Man Becoming* develops formally and lengthily the basic insight of *Action* and develops it not now for the justification of Christian belief but for the understanding of the Good News itself. This Good News, for Baum, is that God is present to us in the most ordinary activities of our existence; and ordinary, this-worldly activity is not simply the unfolding of the pre-determined possibilities of the *animal rationale* but rather the realization of a humanity whose dimensions remain open in the future. God is present to man precisely as he becomes man. Indeed, Baum largely bypasses the Blondelian effort to show that finite action must force an ultimate option for or against an openness to the infinite reality beyond human finitude. He would prefer " to say that man is open to the supernatural not only in an option by which he transcends the finite but in the many necessary and often painful choices by which he perseveres in the movement toward growth and reconciliation." The experiences that he would discuss are principally those of secular dialogue and communion with their ineluctable exposure to failure and corruption. What most impresses Baum here is the sense of gift that touches the experience of both dialogue and community, of a gift that seems to transcend the power of all the people involved; and he would propose that the Christian can be particularly sensitive to this gift-aspect of life in his acceptance of the Gospel in faith.

Gregory Baum claims none of the rigor of *Action* for his own argument. He acknowledges that the phenomena described by him need be understood neither within his scheme of religious interpretation nor within that of Blondel. The living acceptance of the Gospel becomes something in the nature of Ian Ramsey's disclosure events-through it we can perceive

seemingly ordinary happenings as peculiarly extraordinary. We can apprehend the sacredness of the secular. Thus, Baum's endeavor to interpret the Good News in terms of its relevance for areas of life not generally considered religious becomes extremely important. Without such an endeavor the Good News can have no relationship to the concerns of the men who hear it. What is more, it cannot even be understood for itself, since it will be the Good News only if it comes to people as a message of real moment for their existence in the world.

The greater part of *Man Becoming* is Baum's re-reading of traditional Christian doctrine with the Blondelian shift away from extrinsicist apologetics and theology in mind. The questions that he surveys fall under three headings: Jesus Christ and the Christian Church, the eschatological promise, and the general orientation of Christian teaching and practice. The key to the mode of interpretation is the same throughout: the significance of the Gospel is that revelation and redemption happen everywhere. Jesus is the human sign of God's grace to men in all that they do; the Church is a gathering of Christians proclaiming the availability of God and grace beyond its own confines; the sacraments are gestures expressing the sacredness of quite unspectacular everyday activities; eternal life begins now, and its meaning for men as they face their own mortality and the transitoriness of their world is that God can bring life from death; prayer is the readiness of man for the new life offered him at each instant. Placing one clause after another in this fashion can only give a slight intimation of the scope entailed in Baum's move to unveil the implications of the direction taken by Blonde! and more or less confirmed by Vatican II. It is an ambitious undertaking, and the result is coherent and daring from beginning to end.

One perplexing facet of Baum's book is the degree to which he fails to live up to the expectation created by the sub-title *God in Secular Language.* The phenomenology of secular existence is stimulating and appropriate in many parts of the work, but the language used in the very first paragraphs is anything but secular. *Word* and *spirit, paschal mystery* and *redemptive presence* are ordinary vocabulary in practically every section. The effect is that the text assumes a hieratic tone reminiscent of Karl Barth or the documents of Vatican II. Such a text would be confusing for Aquinas or Suarez, but it would also be confusing for anyone not attuned to the religious discussion of the past few decades. It is true that Baum's last chapter includes a long discussion of the translation of God-talk into man-talk and that the application of expressions like *word* and *spirit* to God become means of saying something about human life. And, furthermore, *Man Becoming* is addressed more to the modern-day believer interested in a new Christian language than to his thoroughly secularized neighbor. I myself, however, would have preferred the sobriety of Blondel's very diffi-

cult prose to the unction with which Baum writes, and I am not even a fully adjusted secular man of the twentieth century.

Another difficulty that I have in reading *Man Becoming* is that I do not always know what Baum wants to say. His descriptions of the human situation are clear and insightful; and, although I discover large elements of thinkers like the psychologists Erikson and Rogers or the social theorist Mead in different sections of the book, I am impressed with the originality with which he has combined these elements with the vision of religious philosophers like Marechal and Rahner. But, after I have read of "the resurrection of the dead and life everlasting " as primarily a way of testifying to our hope that God brings life from death and of the transcendence of God as a way of declaring that life remains open to the new, I find myself still ready to ask age-old questions about immortality and transcendence. " Should we expect the human consciousness of Gregory Baum to continue in some fashion beyond his death? " " Is the ever-startling gift offered to us in life a knowing and loving someone irreducible to all human possibilities?" I am sure that Baum would regard these queries and the others I would like to pose for him as leading to the very objectification which he has been trying to avoid in religious discourse. Perhaps the acceptance of some of the objectification normally associated with such discussions among philosophers would be valuable even for the purposes of *Man Becoming.* Certainly it should be possible to come cleaner than Baum tends to in his discussion of most questions. One consequence of not coming clean is that I cannot be as sure as I would like of his success in skirting the theological reductionism he would reject. I suspect that Maurice Blonde! would have found *Man Becoming* reductionist to an unacceptable degree. Undoubtedly, he would have thought Baum closer to George Tyrrell than to himself in method and content as well as in style. It was always hard to know where Tyrrell stood in the end with his effort to be at once orthodox and radical, and Gregory Baum can sometimes evince a similar elusiveness.

MICHAEL J. KERLIN

La Salle College
Philadelphia, Pennsylvania

Philosophy and Christian Theology. Proceedings of the American Catholic Philosophical Association. Washington: The Catholic University of America, 1970. Pp. fl75.

The forty-fourth meeting of the ACP A was held in San Francisco from March SO to April 1, 1970. Its general theme was: Philosophy and Christian Theology. Around this central theme, as in previous years, the texts which were presented both in the plenary sessions and in the meetings of eight sections took up various subjects which were likely to clarify the problem of the relation between theology and the principal currents of contemporary philosophy: philosophy of language, philosophy of science, Whitehead's philosophy, moral philosophy, metaphysics and natural theology, philosophy of religion, phenomenology, and existentialism.

It was in the plenary sessions that the problem of the relations between philosophy and Christian theology was directly taken up. I am thinking in particular of the compact texts of J. F. Smolko and F. Sontag, while P. Ricoeur and J. F. Ross presented precise examples of the changes that philosophy is in a position to contribute in the perspectives of Christian thought. P. Ricoeur, taking up ideas developed earlier (cf. *Le conflit des interpretations,* pp. 898-415, 491), shows how the problem of hope is capable of renewing philosophical problems, while J. F. Ross appeals to the resources of linguistic analysis for the problems of analogy.

Nevertheless, it is through the exposes of Fathers W. A. Wallace and B. Lonergan that we can best perceive the confrontation of two conceptions of philosophy within Christian thought at this time. Fr. Wallace, in his speech as president, argued the case of a " developmental Thomism," that is to say, of a real distinction between theology and philosophy which however would not impair a real unity of Thomism. Fr. Lonergan, on the other hand, opted for a more radical change. For him, Thomism would cease to play a central role in order to be situated and thereby integrated into a more general view, no doubt a little like Aristotelian logic or Euclidean geometry in the contemporary logical and mathematical syntheses.

It is quite difficult to present the argument in favor of Thomism more clearly and briefly than Fr. Wallace did. All the essential aspects of the question were considered and all the possibilities of solution were examined. In spite of the difficulties and the questions raised, Fr. Wallace remains convinced that Thomism will again, as so many times in the past, find its leading role in Christian thought, theological as well as philosophical. The diversity will be more marked, but this will not prevent sufficient unity, a unity which is guaranteed by an essential reference to the thought of St. Thomas.

Fr. Lonergan's point of view is different. He thinks that the essential change which has come about in philosophy is the movement away from eternal truths, as accepted by St. Thomas among others, to the idea of

"developing doctrines." (p. 19) And by that we must not understand simply the historical succession of philosophical systems, for instance, but rather the advent of theoretical interpretations based on the history of human thought, historicism and hermeneutics, which give us a conception of the work of the human intellect quite different from that inspired by Aristotle. " The key task, then, in contemporary Catholic theology is to replace the shattered thought-forms associated with eternal truths and logical ideals with new thought-forms that accord with the dynamics of development and the concrete style of method." (p. Q6) In four pages Fr. Lonergan formulates the program which, in his opinion, philosophy should follow today in order to endow theology with the new forms of thought which it needs. Here transcendental philosophy holds an important place. It would effectively allow us, as Kant had thought, to know what we are doing when we know and consequently to know exactly what we are knowing when we exercise this activity.

The radical difference between the positions of Frs. Wallace and Lonergan is obvious. Fr. Wallace places himself within Thomism or supposes that we have already been situated within its perspective. The question which Fr. Lonergan poses is logically prior to such a step. Even more, the question seems to imply that a value judgment has been made on Thomism, as on all philosophical thought besides, at least in the sense that it has been situated, interpreted, connected with a certain stage or a certain form of the history of human thought.

To place oneself within Thomism in order to trace the current of history is indeed one thing; it is another to place oneself in the overall perspective of the history of Christian thought, namely, of the development of our whole history in which Thomism represents one current among a great many with their characteristic traits. In one case you find yourself aboard a vehicle, I should readily say aboard a bathysphere, which explores the depths of the ocean with the beam of its searchlights and from the particular universe which it constitutes. In the other case, you try to place yourself aboard a satellite which gives an overall view of a considerable part of the earthly globe, including the ocean in which the bathysphere is moving, applied to its task in quite different conditions. In the age when the panoramic possibilities which satellites give us did not exist, it was possible to believe that the explorer possessed the only perspective possible for man. Should not the panorama which is ours today oblige us to reconsider this point of view and to ask philosophical and theological questions while abandoning ways of viewing which are manifestly out-dated?

Is the distinction between a historical Thomism, that of the thirteenth century, and a developmental Thomism, that is, Thomism as it has developed since the death of St. Thomas, sufficient to answer the question as it has just been posed, even if you include in the development a pluralism which is more accentuated than in Scholastic philosophy and theology as

it has been known until now? It is difficult to answer the question with a simple yes or no. If it is a poor question, not to ask it is a minimal disadvantage; but if it is a true question, it is not the same case. How can we know, however, if the question is valid or not before agreeing to consider it seriously?

We can hesitate, it is true, to ask the question raised by Fr. Lonergan for at least two reasons: on the one hand, because it seems to already imply, as we have indicated above, a solution which affects the import of every philosophical system; on the other hand, as Fr. Lonergan himself points out (p. 30), because it leads us in the direction of historicism, that is, of relativism in which Dilthey himself has rightly perceived the danger. If every doctrine is valid only in a determined historical context, the very idea of truth, and not only of eternal truth, seems destroyed for want of a term to which it could refer with some certitude and precision.

Whether we hesitate or not to ask the question, we cannot a priori either deny its value or decide on the answer which it entails. In every hypothesis we must clearly distinguish the facts and their interpretation. In this regard the comparison of the bathysphere and the satellite which I used above is fallacious. It seems to suggest that the second could replace the first in order to accomplish the same tasks, which is just not the case. Above all, it reduces a problem of quite another order to a mere difference in the extent of the space observed and an arrangement bearing on data of the same kind. The phenomena of life in general, of the life of the human intellect in particular and of its history, require the creation of appropriate models, under penalty of betraying the facts which we claim to interpret. Fr. Lonergan very rightly expresses this.

> Rather what is wanted is a coming together of the fruits of historical expertise and, on the other hand, of models derived from the data of consciousness, from the different types of its differentiation and specialization. From the interaction of detailed research, overall views, and the construction of models there would gradually emerge a phylogenetic set of schemata that would provide socio-cultural expertise with a first approximation to the notions it has to express. (p. !29)

When the history of philosophical thought is at issue, the conception of models of interpretation is a philosophical task, a sort of meta-philosophy, capable of supplying the key to the philosophical effort in its entirety and to different philosophies in particular. The danger in the undertaking is obvious, notably that of misrepresenting the true sense of the different philosophical positions that are to be interpreted. Transcendental philosophy has been invoked since Fr. Marechal by a good number of theologians. Fr. Lonergan appears favorable to it. E. Gilson in France, Lakebrink and Hoeres in Germany have shown its inadequacies, especially when it is a question of realist thought. Hermeneutics in its turn has been challenged. Unless we suppose that all human thought finally rests on a set of gratuitous

conventions, which we would be satisfied to interpret without ever knowing why, it is really necessary to admit a primary meaning which is given in one way or another and upon which rest the interpretations which have appeared in the course of history.

In a recent work, which seems to be of considerable interest, *Die Lebenswelt* (Berlin: de Gruyter), Gerd Brand has called attention to what he calls the concrete a priori, namely, the *Lebenswelt,* the importance of which Husser! foresaw without succeeding in thematizing it correctly. I do not subscribe to all of Brand's affirmations. His interpretation of the metaphysics of Aristotle, for example, seems to me completely debatable. But his demonstration (including the critique of the systems of Husser!, Heidegger, or Merleau-Ponty) indicates clearly that we have to conceive of the development of human knowledge in a more different manner, in the sense of an *integration,* and not of a *succession* where more recent views would replace older ones by eliminating them.

Philosophy, in fact, did not begin and cannot begin with an empty question. It presupposes a primary *knowing,* that concrete a priori already formed in us when we ask the first questions and without which no answer could be accepted or rejected. Philosophy is certainly not a world which is ready-made and inborn, but it seems to be formed as if through a natural response and constitutes the permanent basis for the most evolved and complex mental life, the basis of all verification. *(op. cit.,* p. 211 ss.: *Das Problem des Anfangs der Philosophie)*

This thesis, which Brand develops in a convincing manner, certainly demands more detailed information and much research. It agrees, however, with a great number of recent observations in the sciences of man. If the thesis were verified, it would obviously oblige us to pose the problem of the nature of philosophical effort as a whole in a less formal perspective, closer to the views of Whitehead or Nicolai Hartmann, according to which the superior forms of the real *emerge* from humbler forms and at the same time *integrate* them. Perhaps we must add for the sake of our problem that not ony humanity in general but also each individual emerges to the *reality* of the world more or less explicitly thematized, starting from these first representations and interpretations. This is to say that the problem of being and realism have, for each of us, a privileged link with this concrete a priori. Even if we should later ask the question of its relation with the conceptions which reality itself obliges us to form on the basis of new methods, it is important to examine its nature, its origin, its exceptional role, since without it we would no longer even know what we are speaking about in our abstract constructions. The result would be the disappearance of the meaning of the whole human enterprise leading to the existential vacuum that V. Frankl speaks of.

The model which would be then suitable for interpreting the various ways in which men have endeavored to discover the truth in different areas

and on the different levels of knowledge should absolutely avoid *reduction* to a uniform type. It should respect the importance and the reach of the knowledge which is formed in us by a kind of natural reaction and which language translates but cannot produce by itself, at least for original data. It should bring out the difference which separates a philosophy which, like that of Aristotle and St. Thomas, is attached to the elucidation of the meaning of *real* being from those philosophies from Descartes to Husser! which have put the accent above all on *certitude,* a subjective state, and the conditions for its maximum realization. As a result, we could also better distinguish the content of properly metaphysical problems and their *representations,* indeed the imaginative schemas, which from one period to another have fixed and often deformed the terms of the problem. All of this by reason of historical context or the state of the development of knowledge or even the choice of a philosopher.

The road along which humanity has travelled to reach the present state, if we consider it in its entirety, is more "multiple" than it seems at first glance. Will purely formal models be able to account for this fully? This can well be doubted. If our mental life rests on a concrete basis to which we constantly refer without always being aware of it, without clearly saying so, even for our philosophical life, we must take into account all that such a fact implies when it is a question of forming a general interpretation of its history. This would explain the originality of the great changes which have come about in philosophy and in all the scientific disciplines since Descartes and Kant and which have made possible, with the evolution of the sciences and of technology, the present state of our knowledge so different in both content and methods from the thought of Aristotle and St. Thomas. It would also explain the fact itself, rightly underscored by Fr. Wallace, of the regular return to the thought of St. Thomas, as also to the pre-Socratics, to Plato or Aristotle, as well as the futility of so many attempts to dress up Thomism in the fashion of the day, as, for having done so, many scholastics-and not the least of these-are criticized by historians today for not having always even taken the trouble to do justice to the doctrines in question.

This concrete a priori would finally allow us to portray in great relief the relations of the Word of God and theology with the different levels of human knowledge, from its most humble and concrete forms up to the most abstract. It would therefore allow us to affirm more truly, in its entirety and in the complex relations among its various stages, " the path by which one has come," to repeat Mach's expression quoted by Fr. Wallace. (p. 8, note 9)

L. B. GEIGER, **O. p.**

University of Fribourg
Fribourg, Switzerland

La Tr(Mcendenza della Grazia nella Teologia di San Tomm(MO d'Aquino. By CAMILLO RurNr. Rome: Universita Gregoriana Editrice, 1971. Pp. 383. $10.00.

This book presents the results of the author's research for his doctorate in theology. The research was conducted under the direction of Juan Alfaro. The purpose of the work is to investigate the transcendence of grace with respect to nature, as this theme is treated in the systematic works of St. Thomas Aquinas.

After the introduction, in which a very useful summary of the subsequent chapters is given, there follow seven chapters, and a conclusion. Among other topics taken up the seven chapters treat the following: the foundation of the transcendence of grace, which is the beatific vision; the supernaturality of the beatific vision, with extended study of the meaning of the terms supernatural and natural in St. Thomas; the meaning of the gratuity of the beatific vision, with related questions such as the meaning of " *debitum naturae* "; then the supernaturality and gratuity of the state of original justice are treated; the relationship of the " natural " order to the "supernatural" order; finally, the relationship between the immanent and transcendent aspects of the vision of God, with particular emphasis on the question of the natural desire for God.

In the conclusion the author compares and contrasts the approach of St. Thomas with the contemporary. He thinks that the two approaches are genuinely complementary. The Thomistic approach, which is ontological, can both enrich, and be enriched by, the contemporary approach, which is personalistic.

Since this book covers so many different subjects under the theme of the transcendence of grace, instead of commenting on any single point we would like to make some observations on the work as a whole.

On the positive side, the book is undoubtedly a contribution from the viewpoint of bringing together under the single theme of grace many topics scattered throughout the systematic works of St. Thomas. This is done carefully with appropriate bibliographical references for each topic. The author's particular contribution, therefore, seems to be the organization of material scattered throughout St. Thomas's works into an architectural unity.

On the critical side, however, the following points can be made. The author does not seem to go beyond the mere exposition of the texts. In a sense, nothing new comes out of the presentation of the material, except, as was mentioned above, the organization of the material itself. Again, though the bibliographical material is complete and up-to-date, it is not worked into the body of the text itself but remains outside, something like clothespins stuck on a clothesline.

Though the author is aware of the " Christological barrenness " of St.

Thomas's treatment of grace in the systematic works, he overlooks one of the main reasons for this. He fails to locate the systematic works in their *Sitz im Leben* in the pedagogical system of the times, which gave the primary place to the commentaries on Scripture. When one realizes that all of St. Thomas's teaching as a doctor of theology was devoted to lectures on the Scripture and that the *Summa,* for example, was only " outside reading," then one will realize that the one-sidedness of the treatment in the *Summa* was being balanced by the treatment of the same themes in the lectures on the Scripture, in a less systematic but more biblical fashion.

We are in basic agreement with the conclusion of the author where he suggests that the Thomistic and the contemporary approaches can be mutually helpful. This is a valuable suggestion, though there will not be very many in practice who have the patience and intellectual sympathy to get to the depth and relevance of St. Thomas's treatment that lie beneath his thought categories which sound so foreign to many today. The author does not attempt to show how this bridge can be built. He has, however, put us a step closer to the realization of such a project by his organization of the textual material of St. Thomas.

J. R. SHEETS, S. J.

Marquette University
Milwaukee, Wiscomin

Der Begriff religio bei Thomas von Aquin. Seine Bedeutung fur unser heutiges Verstiindnis von Religion. By ERICH HEcK. Miinchen-Paderborn-Wien: Verlag Ferdinand Schoningh, 1971. Pp. 336. DM 32.

The subject of religion is one of great theological actuality and importance. However, it is the subject of study not so much for theologians as for historians, sociologists, psychologists, and perhaps philosophers. The theological examination of the religious phenomenon's structure and origin has to a very great extent been neglected in modern theology whether Catholic or non-Catholic. With a view to meeting in some way this need, and in order to help somewhat towards an authentically theological interpretation of the mass of facts offered by modern historical study, by sociology and psychology, E. Heck has set himself the task of expounding the essential lines of St. Thomas's thought on the subject, whilst at the same time taking care to point out how the teaching of Aquinas may well be completed and at times modified by the results of modern scientific investigation into the origin and structure of the religious phenomena.

St. Thomas's treatise on *religio* is one of the most extensive in the *Summa Theologiae,* taking up 20 full questions divided into 109 distinct articles

(II-II, qq. 81-100). It is rather unfortunate that it has not received the attention it most certainly deserves from commentators and students of Aquinas. The treatise is built into his formidable and ingenious moral theological synthesis: for, as distinct from most modern investigators, he conceived of *religio* as that quality or disposition of soul that is called forth by man's realization and conviction of his creaturehood, and of the Creator-God's claims, based on the metaphysical fact of creation. Faith is obviously presupposed and one might say even included (in-formatively) in all religious experience and life, as also is the ultimate possibility of demonstrating the existing reality of a Creator-God (See *I Cont. Gent.,* c. 9, n° 58; also his frequent reference to the *ius* and *beneficium* of creation as the source of all religious experience and disposition; *III Sent.,* d. 9, q. 1, a. 1, qcla. 1, n° 20; *III Cont. Gent.,* c. 120, n° 2924; I-II, q. 100, a. *5* ad 2). Now, Heck, in order to achieve his end of expounding the essential thought of Aquinas and of pointing up its true relevance in modern theological discussion (and perhaps in a special way in *ecumenical* discussion), bases his work on a detailed examination of 14 articles of the thomatic treatise, viz., on the 8 articles of II-II, q. 81, and on the following six: II-II, q. 82, a. 2; q. 83, a. 3; q. 84, a. 1; q. 85, a. 3; q. 88, a. *5;* q. 89, a. 4. By and large the author has succeeded admirably in his attempt. One is impressed by his deep insight into the theological thought of Aquinas and by his obvious familiarity with the whole thomistic corpus. Where criticism is put forward it is always well-founded, though at times it may not always convince. The impression left is that one is constantly in contact with the living and *germana mens* of Aquinas, who perhaps more than any other would have welcomed criticism and discussion of his thought.

For St. Thomas *religio* is a potential part of the cardinal virtue of justice. Heck examines this position (schematization?) in detail, together with the two diverging opinions that make of *religio* either a fourth theological virtue (Hourcade) or a fifth cardinal (Lottin) . In spite of the admirable quality of Heck's work one at times get the impression that he has not grasped the full import of St. Thomas's very acute and very technical analyses. Thus, for instance, the full meaning of *potential* part does not seem to be grasped. Nor does the true implication of the *inaequalitas* inherent in all religious effort. Ultimately all this is reducible to the authentic notion of *habit, disposition, quality,* and *virtue.* It is, one may be permitted to think, a pity that the author did not use the brilliant study of the greatest of modern Thomists, J.-M. Ramirez," Doctrina Sancti Thomae Aquinatis de distinctione inter habitum et dispositionem " in *Studia Anselmiana* 7j8, pp. 121-142. The same author's work *De Ordine placida quaedam thomistica* (Salamanca, 1963) could also have contributed much. Alexander Horvath's *Annotationes ad Secundam Secundae (QQ. 81-91) de virtute religionis* (Rome, 1929) has an immediate bearing on the subject under discussion

and would certainly have been of considerable use. In spite of such criticism, which is meant to be truly constructive, we must be grateful to the author for his courage (in this non-thomistic age!) in expounding so thoroughly and, one might say, so existentially, the mind of Aquinas on a very actual theological problem.

CORNELIUS WILLIAMS, O.P.

Munich, West Germany

Theology Today Series. 25. The Theology of Baptism. By LORNA BROCKETT, R. S.C. J. *Death and Eternal Life.* By MICHAEL SIMPSON, S. J. Notre Dame, Ind.: Fides Publishers, 1971. Pp. 94 and 95¢ each.

The author of *The Theology of Baptism* is a religious and a Scotswoman, whose first love was for English and French literature and who lectures in Theology at St. Mary's College, Newcastle-on-Tyne. She has gathered here a florilegium of Christian literature on Baptism and an analysis of the teaching of the New Testament. There is a chapter on the attitude of the Reformers and the reactionary canons of Trent; otherwise there are only passing references to the teaching of the Church. One chapter deals with Baptism in Scholastic Theology, as if it belongs now to history. Problems are also discussed: the salvation of the unbaptized infants and of the unbaptized adults. The author slips into a common misunderstanding concerning the exorcisms in infant Baptism. They were suppressed, she says, because they "were only meaningful in the case of adults." (p. 60) But the new rite for infants contains a prayer of exorcism and the renunciation of Satan. To be born in the state of original sin means clearly that one is not yet possessed by the Holy Spirit of God, and therefore quite open to the influence of the Devil.

Death and Eternal Life was written by a philosopher. His treatise is largely philosophical, interesting and partly satisfactory. But what is presented in a book that belongs to a series in Theology is the limited view of the philosopher. He speaks of" love for others as an ultimate value in man's life" and in the same paragraph he says: "to love God is equally an absolute value." A natural unselfish love of one person, one's wife, for instance, can hardly be put on an equal footing with the love of God. Again, he says: " the Divine Mystery never ceases to be a mystery, man always remains a questioner before God." That is good philosophy. But Jesus speaks of a time when we shall ask no more questions. Heaven is the end of our quest. It is hard to know whether or not the author considers Justice as a Divine Perfection. The damned seem to back out at the end acknowledging themselves as unworthy. Still we say: "He will come to

judge the living and the dead." But of the three great creeds-the Apostles' creed, the Athanasian and the Nicene, the author says: " the acceptance of these creeds by long tradition in the Church has given them considerable authority as witness to Christian belief." (p. ft9) Symbolic and non-symbolic interpretation loop the loop, and one is not sure in the end what is the meaning of the Resurrection of the Body. The author comments on Romans 8: ft1, but St. Paul's fifteenth chapter to the Corinthians is not mentioned in that context. Heaven as a reward slips away; we build it up for ourselves by the grace of God. Merit is not mentioned. Sin and grace are always in inverted commas, as if we Christians had no right to give a new meaning to words as to life itself.

There are good things in this book and useful insights into Christian morality, for instance, a timely plea for community prayer for the souls in Purgatory. But I wonder is it fair on the part of the Editor of this series to engage authors who are not competent to deal theologically with their subject. Of course, apart from that consideration, the book in itself is worth reading, keeping in mind that it is dominantly pure Ethics.

JEROME TONER, O. P.

St. Charles' Seminary
Napur, India

Chiesa e Utopia. Edited by G. BAGET Bozzo. II Mulino: Bologna, 1971. Pp. 209. Lire 2.900.

The author was involved from the very beginning in political activity in the Christian Democrat Party. He contributed to the monthly review " Terza Generazione " and directed " Ordine Civile," a review whose aim was to harmonize Christian values with the political dimension of society. Afterwards he studied theology and was ordained in 1967. At present he is the Director of " Renovatio," a review of theology published in Genoa.

Bozzo attempts an interpretation of our time from a Christian point of view and, on the other hand, an interpretation of Revelation in the light of the present cultural situation. It is his claim that our epoch assures a better possibility of understanding Scripture, since the language and vision of the universe we have acquired today is closer to that of the Bible.

The book opens with a view of anthropology in which the crisis of the noetic ideal since Kant is examined. "Western anthropology," Bozzo writes, " is an anthropology of the individual, of the individual as rational. The cosmological and collective aspects are out of the picture in Western culture." (p. 16) An attempt to propose a new image of man is undertaken by two types of anthropology, which the author calls " anthropology of the

future," those of Marx and Nietzsche. This anthropology of the future, however, has failed to provide a sufficient rational ground and has led to the restauration of metaphysics under the form of existentialism. Bozzo thinks that the idea of an anthropology of the future was the determining factor in the atheism of the masses.

The author then deals with the "crisis of theology." Focusing on the philosophical foundations of theology, he analyzes the relationship between biblical and Greek concepts. The hellenization which took place has led to an impoverishment of the biblical message. Radical theology has given the death blow to liberal theology and has brought out the extreme consequences of the principle of radical separation between the divine and the human through the rejection of the concept of analogy.

A following chapter is dedicated to the categories of time and space from the philosophical as well as biblical point of view. Both the concept of mankind as it constitutes one subject and the sense of history are stressed. At this point Bozzo presents an insight of the Church. In the perspective of the relations between history and eschatology the Church is defined as eschatology in history. The Church is also, as the "Corpus Christi," a public, social, and visible reality; hence the "political" aspects and implications of the "corpus christianorum." The fifth chapter is more related to the title of the book. Moving from an historical view of the concept of person, it deals with the transcendence of person in regard to authority as it was vindicated by Savonarola and Thomas More.

On the political level More worked out his famous *Utopia.* Bozzo examines its Christian and eschatological basis by raising the question why this book did not become a classical Christian book. He sees the reason in the separation of history and eschatology introduced by Protestantism.

According to the author utopia found its expression in recent times in the forms of revolution (Marx, Lenin), of moral rebellions (Mao, Che Gevara), in the phenomenon of contestation (Marcuse, the "Spring of Prague "). In religious communities there has been a similar widespread dissent.

The book closes with a reflection on " Christ in the time of Utopia," in which Bozzo synthetizes his thesis as follows: "If God is perfect humanity, divinization is perfect humanization, eschatology is perfect utopia." (p. 199)

This work is to be set in that modern current that seeks a re-expression of the revealed message and a new approach of the Church to the contemporary values of the world. It sees a concrete point of approach in the ideas of future, hope, and utopia which have been recently exploited both in philosophy (Ernst Block, Roger Garaudy, Gabriel Marcel, Josef Pieper) and theology (Juergen Moltmann, to cite the most famous author). Bozzo shows a good knowledge of the history of Western philosophy and offers many interesting and original interpretations and insights. I would say, however, that the book, on the whole, has failed to be probative. The theme

is not sufficiently worked out and the reader does not achieve a vision of the problem and its solutions. The thought, expressed in a vigorous style, lacks a unitarian line of development. The intuitions and original ideas are hinted at but not proved and deepened. To sum up, *Chiesa e Utopia* may be an helpful insight on a modern sensitive topic, but it does not represent an outstanding contribution.

ANTONIO MATTIAZZO

Washington, D. C.

Cistercian Fathers Series Number One. *The Works of Bernard of Clairvaux.* Volume One. Treatises I. Spencer, Massachusetts: Cistercian Publications, 1970. Pp. 199. $7.50.

The board of editors of the present series chose for the first volume in the series four short works of the best known Cistercian, Bernard of Clairvaux. The whole series is sponsored by the Cistercian communities of America, primarily to provide Cistercian monks and nuns with good translations of the Fathers of the Order. (p. ix) For religious houses, where reading in common is still in vogue, such translations can be useful. The treatises in the volume are: 1. *St. Bernard's Apology to Abbot William.* *The Book on Precept and Dispensation.* 3. *Prologue to the Cistercian Antiphonary.* 4. *The Office of St. Victor.* These particular works were chosen because they never before had been published in English. (p. ix) The translations are preceded by introductions by Jean Leclercq O. S. B., Chrysogonus Waddell O. C. S. O., and Basil Pennington O. C. S. O. There are also brief notes by the translators and editors. The volume closes with a selected bibliography and an analytic index. The translations are based on the critical texts edited by Jean Leclercq and Henri Rochais in *Sancti Bernardi Opera* (Rome, 1963).

Before reading the translations the reader would be well advised to note the statement of the translator, (p. 30) otherwise he will be somewhat surprised at the liberties taken with the Latin text.

In the volume two of the Works are important, namely, the *Apologia* and the *de Praecepto et Dispensatione,* because they tell us a great deal about St. Bernard's concept of the monastic life. From the *Apology* we gather that the Cistercian interpretation of the Rule of St. Benedict was the correct one, and from the *On Precept and Dispensation* we learn that deviations from the Rule, whether by abbots or monks, were deplorable. Once a monk had committed himself by vow to the monastic life he was bound to live out this life in the monastery of his profession, even though conditions had become almost unbearable to the monk. (p. 146) To direct

questions put to him about this point Bernard's answers were not too clear, but we can easily see that the monk was expected to persevere. The monk was bound under pain of sin to the Rule which he professed. Violations of the Rule could be venial or serious *(venialia or criminalia)* depending on the gravity of the offence. (p. Bernard maintains that he respects all the different Orders in the Church and pretends to attack only the excesses in several monasteries, (p. yet many readers have the distinct impression that very few monasteries would escape his sharp criticisms, especially on the matters of food, clothing, and works of art.

St. Bernard was a literary humanist, but in things pertaining to the life of a monk he seemed to have placed his emphasis on spiritual values, even to the belittling of human values. His Latin style and command of rhetorical devices are of a high calibre. The suave Latin style is not evident in the English translations but the rhetorical sophistication is; here only the *cursus* is lost. This brings up two questions. I. Where and how did Bernard learn Latin? So far there is no satisfactory study on this point.

How do we read St. Bernard, since we know that his writings are filled with rhetoric? In the introduction (p. 6) it is suggested that we do not doubt the sincerity of Bernard's expression of reluctance to write the *Apology.* (p. 33) But this is an old device; see Pliny's *Letters* Book *5,* letter 8: *Suades ut historiam scribam.* It is the same motif. The sharply satirical vein of Bernard's attacks reminds us of St. Jerome, especially the *Contra Jovinianum.* The exaggerations of *amplificatio* surely must be taken into account as we are warned in the introduction. (pp. 16-7)

The translations are very free, yet they do give us the substance of Bernard's thought. Often the sentences are so re-arranged that the reader would need the Latin text in front of him to interpret the text. For example (p. 34, II. 3-6). "This is more unbearable still" belongs before " You say that we insult," etc. Often something is lost, and, I think, needlessly so. For example, to translate *desererent cathedras* as " resign " is too mild a rendition. Of course, the *cursus* cannot be maintained, but I feel rather certain that Bernard looked upon such an act as " desertion." I wonder, also, if it helps if one tries to imitate a style and lose the thrust of the Latin. For example (p. 69), " slander-candor" for *detractio-attractio.*

In the introduction to the *On Precept and Dispensation* (p. 76) it is suggested that " St. Bernard had therefore to turn lawyer and define in juridical terms the relation which obedience creates between superior and subject." The precision of " juridical terms " is not apparent to the non-specialist in either the Latin text or the English translation. A reviewer cannot rightfully blame an author for what he did not do, unless, of course, he needed to do it to make the text intelligible. For example, we need a bit more than is in the introduction on the complicated history of the

conversio vs. *conversatio morum;* the problem arises quite often in the misreading of abbreviations in manuscripts. It seems quite clear from what St. Bernard says that the Rule of St. Benedict binds under pain of sin but that some reasonable and necessary dispensations were admissible. (p. 107) Yet the wide variety of words used by St. Bernard for " sin " is baffling, if, indeed, he did use juridical terms accurately. Is there a difference between *prevaricatio, transgressio, culpa, peccatum, crimen, peccatum criminale, damnosum, flagitium, scelus, facinus, offensa, obnoxium peccato, praetergredi,* etc.? This requires sorting out. The translator is far from consistent in his translations. For example (p. liS), "they are faults rather than sins"= *quo vix vel peccatum reputatur;* (p. ll6) "lesser fault"= *minus peccare;* " neglected without fault " = *offensa:* " nor despised without sin" *(crimen).* For any precise study of the problems involved it will be quite necessary to turn to the Latin text.

In spite of these criticisms I do not hesitate to say that the series will do a very useful service to introduce the readers to the founding Fathers of the Cistercian Order.

J. REGINALD O'DoNNELL

Pontifical Institute of Mediaeval Studies
Toronto, Canada

Despair: A Moment or a Way of Life? By C. STEPHEN EvANS. Downer's Grove, Ill.: Inter-varsity Press, 1971. Pp. *135.* $1.50.

Although this work by C. Stephen Evans hardly merits appraisal for its own content, it does serve to point up two seemingly inevitable trends worth exploring: the use of specialized fields for reductionistic polemics and the excessive individualism occurring in reaction to new emphases on man's corporate identity.

As for the book itself (or rather the tract), Evans trades upon the writings of Dostoevsky, Camus, and Sartre to set the stage, claiming man can choose despair. According to Evans, man can choose hope instead; and he cites Marcel, Jaspers, Kierkegaard, and Frankl in the course of his rationalizing such a "choice." A final section (six pages) offers Evans' own question: "Why have I chosen to believe that Jesus Christ is God?" Having explained the " three criteria " for his " choice " Evans still has space remaining to urge others to " have faith." Aside from the fact that Evans misses the message of almost every literary work he uses, he nowhere produces any statement of the meaning of " faith in Jesus Christ," allowing the phrase to stand as an empty code word, a symbol of his simplistic assessment of the human condition.

Speaking of symbols, *Despair* points to the increasing tendency of some

theologians to vulgarize specialized fields for ulterior purposes. The works of ecologists, futurologists, and novelists seem to be those most frequently violated, although in this particular case it appears to be the perceptions of Nathan Scott, Jacques Maritain, and other students of religion's role in literature.

Even more depressing is Evans' total reliance on isolated, individual cerebrations as the focal category for human faith. He pretends that human choices are made by one's self, in complete conformity with rational precepts, and according only to evidence (or lack of it). His only word of corporate involvement in faith, of dependence upon community for belief, hope, joy, and love is the word of dedication "to Charles and Pearline Evans, who first pushed me along the way." Good grief!

Louis WEEKS

Louisville Presbyterian Theological Seminary
Louisville, Kentucky

Consciousness and Freedom. Three Views. By PRATIMA BoWEs. New York: Barnes & Noble, 1971. Pp. $8.75.

The three views of consciousness and freedom which, according to its subtitle, are to be investigated in this volume are characterized in the titles of its main chapters as the materialist-behaviorist view (1 ff.), the phenomenological-existentialist view, (110 ff.) and two Indian views (167 ff.). The discussion of the introduction (VII ff.) which was written following the advice of Prof. Patrick Corbett and the summary of " some concluding remarks" ff.) seem to be added to justify the choice of these philosophies of mind and " to bring out, on a much clearer level, certain basic themes which occur throughout the book without being systematically put together." (VII ftn.) The prevailing behaviorist-materialist way of thinking about the mind is found in no way to be demanded by the intellectual and cultural context of our time, as scientifically-minded philosophers pretend; for this modern " understanding of mind as determined and physically based ... was already grasped by an ancient philosophical system in India," and the intuitively experienced self-transcending dimension of the human mind is rightly emphasized by Husserl and Sartre in spite of the same intellectual climate that induces materialist philosophers to propose their identity theory as " a product of modern scientific attitude." Both materialist and non-materialist views of the human mind are one-sided, based on a personal preference, " not forced upon us by the nature of things." " A philosopher finds that one or the other dimension is more important or valuable, depending on what he thinks human life is like or

ought to be like, and on the basis of this preference builds a theory to show how what he takes mind to consist of ... is the central fact by means of which everything about man, his behavior and experience, can be accounted for." (XVIII f.)

Thus the behaviorist-materialist scheme of studying man which claims to be scientific reveals the value-judgment determining its philosophy of mind in its view of the scientific method. It is generally admitted that science as such is physical science; " whatever can be studied successfully by the method of science is physical." However, this fact does not imply " that whatever cannot be or is not being studied by science does not exist, or that if it does *appear* to exist it must be an illusion, nor even that it must be one day, with further progress in science, accessible to scientific methodology." Yet all of these assumptions represent guiding principles of behavioristic philosophizing. Behaviorism does not recognize that there is an aspect of human behavior, that is, human consciousness and its influence upon behavior, which is not amenable to the method of physics; it rather " claims instead that this other aspect does not exist.... So the adoption of a methodology which leaves this out, already expresses a value judgment that the type of fact it studies is the only type that is important for us to understand about man." (X f.)

The behaviorist interpretation of human existence and the materialist identification of the mind with a function of the brain identify the conscious with the mental. And since " the mental, as recent researches in neuro-physiology and computer functioning show, can be identified with the physical with some gain in clarity and understanding, . . . the conscious must be physical too." But the conclusion " does not follow if the conscious is something distinct from the mental." (170 f.) The conviction of this distinction is the basic premise of the author's discussion of philosophical views of consciousness and freedom. He concedes a great deal to the behavioralist-materialist conception of the human mind. He agrees with the behaviorist understanding of science and psychology, referring the study of the non-physical mental "perhaps ... to literature." (31) He does in no way intend to " differ from the materialist account of human behavior, . . . with regard to its contention that the mental is the physical when mental means mental$_1$," (6) that is," the capacity to respond in appropriate ways," knowing behaviorally, "understanding on the level of performance," (XV) " unconscious awareness," (175) awareness " at the level of behavior," (173) "a state apt for the production of discriminative behavior," (174) or "discriminative, intelligent, purposive" behavior. (XIV) Dealing with a situation intelligently, certainly implies that the subject " perceived the situation as being so and so or was unconsciously aware of it-how otherwise could he deal with it." (171) However, there " is no reason why the intelligent activities of human beings cannot be

explained on the same principles as the intelligent activities of machines." (172) The materialists have shown "that the mental$_1$ is identical with the physical " (4) or that it is " a characteristic of the physical, that is to say, an outcome of the physical and chemical properties of brain states." (4) Against "non-materialists such as the interactionists" who stress the importance of consciousness in human behavior, the author maintains " that most human performances, including thinking *as manifested in inteUigent use of words,* can be explained purely by brain functions without the aid of consciousness." (6) Even the logical structure involved in speech can be grasped by the mind " at the level of performance . . . purely by virtue of innate intelligent capacities of brain states." (XV) Man's "mental capacities and experiences are a function of the working of his body." (XIX)

However, the human mind is not simply constituted of this physical dimension " of dispositional and performatory propensities of an intelligent kind," found also in animals and computers; it includes also a " particular dimension of the human mind, its capacity to have a conscious awareness that it is having an experience," (VIII) " the existence of conscious awareness of private experience," (X) which is uniquely proper to man. Using the terminology customary in the identity theory dispute, Dr. Bowes calls this aspect of the human mind mental$_2$; however, he associates a meaning of his own with this term, identifying it as " consciousness (meaning self-conscious awareness)" (219) as "reflective understanding of experience on a self-conscious plane," (XV) or as a " self-conscious capacity for reflection either on itself or on its experience of the world," (217) distinguished from the phenomenalist materialist's raw feels of sensation. This mental$_2$, " an experience of conscious awareness that p, which is a felt state of awareness and which is identifiable as such by the person having the experience, ... is not identical with the physical . . . because felt experience has an existential identity of its own precisely because it is felt." (8 f.) Conscious awareness cannot be identified with mental$_1$, that is, with a state apt for causing certain behavior. For "experience may occur without leading one to undertake an activity at all." {10) Nor can there be a "physical causality " involved in the obvious dependence of mental$_2$ upon the functioning of the nervous system. For " causal relationship obtains between two events which are quantitatively variable and between which an equation of variation is obtainable." Such a quantitative variation is inconceivable with regard to the relationship between conscious awareness and electrical brain discharge. (82) "Consciousness as a pure function of manifestation . . . turns on itself as soon as it is turned on something; there is nothing but consciousness which functions in this manner, so consciousness cannot be derived from anything but itself." (175) The sphere of conscious awarenes denotes" something non-physical." (8) There is" a dualism ... in the functioning of a human being, but it is better described as dualism of

conscious and mental-physical than as dualism of mental and physical." (6)

The distinction of the non-physical dimension of the reflective consciousness and the physical mental dimension of the human mind represents the standard of evaluation in the author's discussion of the "value-judgments" of the various philosophies of mind. In " an examination of some materialist-behaviorist arguments against experience" (18 ff.) the behaviorist reduction of the mind to dispositional and behavioral aspects of human existence and the materialist identification of the mental with conditions and processes of the brain are shown to be realistic explanations of the mental$_1$, or of "behavior minus conscious experience," (8) but to be unsuccessful attempts to do justice to the intuitively grasped existential identity of conscious awareness. The dispositional conception of the mind, the raw feels of private experience, sensations of human beings, or the intelligence and soul of machines identified with the physical in the different formulations of the identity thesis by Armstrong, (3 ff.) Herbert Feigl, (37 ff.) U. T. Place, (42 ff.) J. J. C. Smart, (46 ff.) Richard Rorty, (50 ff.) D. M. Mackey, (56 ff.) and Hilary Putnam (62 ff.) refer only to mental$_1$, experience$_1$, or sensation$_1$; the particular dimension of the human mind, i. e., reflective consciousness, experience$_2$, sensation$_2$, in the sense of knowing that one is having an experience or a sensation, is ignored or suppressed in such materialistic philosophies of mind; mind$_2$ and conscious awareness cannot realistically be ascribed to machines.

The reality of consciousness denied by behaviorists and materialists is recognized as a unique sphere of its own in the phenomenological-existentialist and the Indian views of consciousness and freedom. However, also these philosophies of the mind represent one-sided value-judgments, inasmuch as they insist upon an exaggerated role of consciousness in human existence ignoring or denying the unconscious intelligent discriminatory aspects of the human mind. " With Husserl and Sartre consciousness and freedom appear as facts of their own kind, independent and irreducible, hence man cannot be assimilated to the non-human world." (218) Self-conscious presence to itself is what, phenomenologically speaking, characterizes the human mode of existing and this does not obtain anywhere. Therefore, consciousness cannot be slurred over as a superfluous epiphenomenon of the central nervous system; according to Husserl, " it must ... be placed at the very centre of human existence and understanding, . . . insofar as meaningfulness of experience cannot be ensured without its intending and intuitive functions." (129 f.) However, Husserl is not satisfied with simply asserting this constitutive role of consciousness, but he identifies mind with consciousness. " As a result, any evidence that a piece of behavior is mental, that is to say, discriminative, intelligent, purposive, etc., is taken as sufficient ground for claiming it is inspired, constituted or at least attended by consciousness." (XIV) Husserl does not distinguish between the two kinds of understanding, i. e., between reflective under-

standing of experience which is impossible without consciousness and understanding shown at the ordinary level of meaningful behavior " where consciousness need not even appear." (XV)

Sartre follows Husserl in emphasizing the centrality of consciousness. As an existentialist he speaks of the facticity of man bound up with his embodiment and his situation. However," when Sartre embarks on an exploration of man's nature and his possibilities," the body-mind system as a source of intelligent discriminative behavior "without consciousness being in any way involved " (XVI) does not seem to be of any importance. Man is defined as the for-itself, which means consciousness, and contrasted with the in-itself, which means matter. And simply "because consciousness is conscious of itself we are said to be translucently aware of all our motivations and springs of action." Consciousness coincides with the very being of man, and " man is not only self-conscious through and through ... , he is freedom through and through as well." (XVI)

Sartre's identification of consciousness with the essence of man is endorsed also by the two Indian theories discussed in this book. Inspired by the Indian desire for detachment from all material limitations and earthly frustrations, they prefer to say that the true and real being of man consists in being consciousness as witness. This genuine being of man is radically distinct from the mind which, as empirical man, either cannot affect consciousness or is an illusion. The pre-Buddhist and atheistic Samkhya builds its understanding of man on " a most uncompromising kind of dualism." (168) Two eternal and absolute principles, the principle of selfhood and the principle of materiality, are at work in the universe. " The principle of materiality is sufficient to explain everything that there is . . . except for the fact of consciousness or knowledge that it exists." (180) Its highest and most subtle manifestation is " the intellect conceived as the principle of discrimination," (177) functioning unconsciously and purposively. All activity springs from this material principle; only self-manifestation, the manifestation of consciousness as being there, is the activity or rather the being of the principle of self, which constitutes man's real nature. A dissociation from his physical and mental properties is made possible by the witnessing function of consciousness which remains uninvolved in the tendencies and frustrations of the personality and thereby transcends the limitations of his psychophysical being as a determined system.

The monist Vedanta system of Samkara finally solves the problem of the mind-body relationship by declaring the existence of a material principle an illusion. The physical world is an epiphenomenon of the mind," a superstructure built on the ultimate reality of consciousness through imposition and this we can see in transcendental experience." (198) The realization of man's being ends in his absolute transcendence of the human condition. " The fact that man has a mind and a body which limit him to the

narrow compass of his individual existence is not an interesting fact about man from this point of view." (XVII)

The freedom of choice defended in the book against arguments of modern soft and hard determinism is obviously not as unconditioned and unlimited as it is conceived in these Indian philosophies of mind. As a self-conscious being, man certainly also " can reflectively decide to change his character as hitherto existing;" (218) the capacity for conscious decision and choice is an "original endowment of all men." (106) However, free choice is not exercised " in a vacuum. It is particularly parasitic on the complexity of the neurological organism." (77) Necessary conditions of an act, however, are not identical with a law-governed causal relationship to a preceding event, which relationship alone would render free decision impossible. Human freedom " does involve a break between the human and the non-human world." (80)

Consciousness and Freedom presents a good introduction into some of the problematics of the body-mind relationship as seen in Anglo-American philosophy of today and, in general, offers fresh and sound answers to the arguments of the behaviorist-materialist philosophy of mind. Realistic investigations of this kind are most welcome. However, it is regrettable that the author, as he himself concedes, did not give a more systematic treatment of the philosophical problems involved and that he all too conscientiously kept his discussion on the same merely phenomenal level that his philosophical opponents so eagerly profess to be the only object of genuine knowledge. He thus avoids that ontological explanation of human existence which the concerned, unbiased reader of his book expects.

A systematic confrontation of the problems as they make their appearance in the dispute concerning the identity thesis would· not necessarily mean a comprehensive presentation which seemingly did not lie in the intention of the author. His discussion of the arguments of the defenders of the new materialism is usually satisfied with meeting only some, mostly the earlier, of their positions; it ignores the characteristic differences of the various types of the identity theory and their motivation. For instance, the questioning of the justification of Herbert Feigl's defence against materialism (40) reveals an insufficient consideration of Feigl's phenomenalistic idealism, or the examination of Rorty's position disregards the essential dependence of this form of eliminative materialism upon Wittgenstein's philosophy of the mind. Nor is it probable that an attempt at a more systematic dealing with the various" value-judgments" about the human mind would have led the author to a recognition of his own personal value-judgment in this regard. A careful phenomenological analysis of human behavior may find difficulties in endorsing his division of the human mind into the two dimensions of conscious and unconscious awareness, and in understanding an unconscious awareness of situ11-tions, an intelligent human behavior merely " by virtue of ... having a body of a certain kind without

consciousness being in any way involved " (XVI) or " innate intelligent capacities of brain states " grasping the logical structure of speech without any use of consciousness. After all, there is a decisive difference between being asleep and being awake and consequently also between man's modes of " intelligent " behavior during these states of his mind. Even animal instinctive behavior differs from robotic reactions and is best explained on the assumption of some kind of consciousness. " Knowing that one is having a sensation " and " having one sensation " in the sense of knowing behaviorally without consciousness (196) are not the only alternatives of human behavior. Next to reflective, self-conscious awareness there is also direct awareness of environment and of human activity and being. A recognition of justified claims of behavioristic philosophers does not demand the denial of the reality of raw feels of sensations, and the possibility of imitating animal and human performances by machines does not justify disregarding the psychic nature of the entire sphere of sensory life or the consciousness of awake human behavior. A systematic treatment of the problems involved, however, would certainly have prevented the frequent repetitions of the treatise, especially the repeated explanations of the difference of mental $_1$ and mental $_2$ and of the pluripotentiality of the determination of the nervous system.

More desirable than a systematic critical discussion of the modern notions concerning the body-mind relationship would, then, be an ontological approach to the problems of the dispute. A more openminded attitude toward the traditional philosophical anthropology and a less exclusive occupation with method and aspects of the modern philosophy of the mind could lead to the recognition and appreciation of the metaphysical concept of causality and thus prevent the difficulties the author obviously meets when attempting to explain the dependence of consciousness upon the nervous system and the origin of a free act by using the concept of physical causality. An ontological analysis of the phenomena discussed in the book alone could finally answer the decisive questions a critical reader of *Consciousness and Freedom* must ask. A questioning mind cannot be satisfied with the author's assertion of a "non-physical" character of consciousness or of man's limitation "to the narrow compass of his individual existence," with his defence of a dualism of conscious and mental-physical in the functioning of a human being, and his profession of a "messy, ambiguous and even paradoxical " view of man. (XIX) He wants to know the meaning of this " non-physical " and understand its relationship to the mental-physical as well as the relationship of this mental to the physical. Is " non-physical " identical with " spiritual "? Is it, as fact of its own, an accidental or substantial reality? Is it genuinely non-physical, that is, immaterial and immortal? How, then, is it ontologically related to the mind of the individual, to his body, and to the person as a whole? Does

the human being truly constitute an existing whole or is he merely a dynamic unity of dimensions of a mind, in which consciousness affects the mental-physical, while this, as "explainable on the basis of the functioning of the body " (XIX) is incapable of exercising any causal influence upon the non-physical reflective awareness? *Consciousness and Freedom* discusses problems of the modern philosophy of mind in an intelligent and interesting manner; it does not answer the important questions of a realistic philosophy of man which it raises in its readers.

MARms SCHNEIDER, O. F. M.

The Catholic University of America
Washington, D. C.

Christian Ethics and the Community. By JAMES M. GUSTAFSON. Philadelphia: Pilgrim Press, 1971. $7.95.

Eight of ten chapters in Gustafson's book consist in the reprinting of articles from such sources as the *Union Seminary Quarterly Review, Una Sancta,* and *The Scope Of Theology* (World Publishing Company, 1965). Another is printed from a lecture to the 1967 colloquium of the Contemporary Theology Institute, Loyola College, Montreal. Thus only two of ten sections contain material not otherwise available, and only one chapter "The Moral Conditions Necessary for Human Community" appears to have been written specifically for the book.

The original chapter, moreover, appears the weakest by far of Gustafson's efforts. That human community cannot exist without faith, hope, and love (all broadly defined) is quite apparent to anybody who stops in the street to think about trusting traffic laws, sharing some measure of confidence in the future, and bearing at least minimal loyalty, reverence, and gratitude for others. By way of creative insight, then, Gustafson's book offers nothing beyond the contributions he has already made to the study of Christian ethics.

On the other hand, *Christian Ethics and the Community* does collect and organize several expressions by Gustafson which continue to exercise considerable influence on the field. His " Context Versus Principles: A Misplaced Debate in Christian Ethics," reprinted from the *Harvard Theological Review* (1965), offered seasoned wisdom at the time of that encounter and several prophetic questions still are guiding much of the discussion. Again, his focus upon " The Conditions for Hope: Reflections on Human Experience" *(Continuum,* 1970) asks the bases and objects of hope. " Only when the object of hope is delineated with enough specificity

to make possible the inference of certain achievable moral intentions can it give relatively clear direction to moral actions " was the conclusion of his essay.

The most appealing of his efforts is also his most lengthy, occupying almost dne third of the book. " Christian Ethics in America," a historical summary of the personalities and issues involved in the writing of ethics since 1930 remains a normative study of the recent history of the discipline. Viewed as an anthology of provocative writings rather than as a major contribution in its own right, Gustafson's work merits both attention and reflection of serious scholars, students, and others who will be interested.

LOUIS WEEKS

Louisville Presbyterian Theological Seminary
Louisville, Kentucky

The Search for Human Values: Moral Growth in an Evolving World. By CoRNELIUSJ. VANDERPoEL,C. S. Sp. New York: Newman Press, 1971. 186 pp. $4.95.

Van der Poel's recent book is a relatively comprehensive essay in moral theology, providing outlines of a theological anthropology necessary for understanding man as a moral agent, a methodology for evaluating the rightness or wrongness of human actions, a discussion of the role of conscience in the moral life of man, and a consideration of sin and virtue as manifestations of failures and successes in human self-fulfillment.

Much that the author has to say is exceptionally valuable, in particular his stress on the dynamism of man's moral life, on the interpersonal relationships between human beings and between man and God that form the fabric of man's existence as a moral being, and on the need to take into account the total human or moral dimensions of an activity in evaluating its moral worth instead of focussing immediately on some isolated element within the activity. He is surely correct in stressing the historicity of man in discussing the way in which moral values are formulated and in showing that new experiences and new possibilities compel us to be alert to the possibility that existing values need to be re-examined to discern their significance and that new values may be created. He is also quite correct in his efforts to eradicate the notion that God is some kind of aloof abstraction, the craftsman who set everything in motion, and to convey the idea that God is operative in human history and immanent in his creation and that men encounter God in a human way, that is, in and through their fellow men.

In addition, Van der Poel's concern to show that conscience is not some kind of impersonalized, computer-type decision-making process but is rather the engagement of the whole person in the effort to determine his life for himself is very helpful in rectifying an overly mechanistic way of viewing man's moral life.

Despite these commendable features, there are some disquieting elements in Van der Poel's work. He is obviously opposed to those who would offer men a prefabricated morality, one based on the premise that man's nature is something static and that man's moral life is the playing out of a role inscrutably recorded in man's being. He is likewise opposed to those who conceive man as some kind of queer combination of body and soul, conceiving the interrelation of the two, as well as the interrelation between man and God, along the lines of some mechanistic model. But Van der Poel gives the impression that it is only *today*, only *now* that men are beginning to realize that the human reality is a genuine unity. He writes that " the rather strong dichotomy between ' body ' and ' soul ' which formerly prevailed has been replaced by a more unified view of the human reality. The insight that the human task has not been outlined in advance, but that it must be discovered by each person together with his fellow men has opened a *new* perspective on the meaning of law." (pp. 6-7) It is true that Van der Poel is compelled to admit that a dichotomy of body and soul was *not* held by St. Thomas, for instance, and that Aquinas " possibly " had in mind the active concern for one's fellow men that contemporary writers have in mind when they speak of " loving dedication " when he said that love is the "form" of all the virtues. But these concessions are rare and are, at is were, almost forced from Van der Poel in spite of himself. The ever-recurring insistence that we are in a " new " age when " new " perspectives are dawning makes the reader think that many of the valid insights Van der Poel has to make are quite peculiar to our own age and were undreamt of by men in a previous period.

But even more serious, I think, is the basic anthropology that Van der Poel offers as a means of stressing the unity of the human person. His position is one based on contemporary existential-phenomenological analysis, and it is a position with much in its favor. Yet the distinction in his anthropology between the " person " and the " human body " that both " reveals the presence of the person and at the same time hides the depth of the same person" (p. 31) seems to end up in a dualism almost as extreme as the naive " body-soul " type of Platonic dualism that is the subject of his. scorching criticism.

The major problem, finally, with Van der Poel's book lies in the methodology that he proposes for evaluating the moral worth of a human action. He is, as noted previously, quite correct in stressing that we must look at all the dimensions of an act, including the circumstances, the agent's

intention, and the consequences that result, in appraising its moral status. He is, moreover, right in affirming that "the material result [the physical act] may never be identified with the human perspective." (p. 56) But the position he takes seems in the end to rob the "material result" of *any* moral significance. For Van de Poel the final determination of the morality of an act seems to depend on the ultimate consequences of the act. Thus, for instance, he thinks that the principle of double effect is based on false premises and is, hence, irrelevant. By this he means that any human act that in traditional moral theology could be described in terms of a double effect can be described in terms of one effect only. For instance, in describing the termination of an ectopic pregnancy he believes it legitimate to state simply that the life of the mother was saved. Obviously the type of reasoning involved in this instance can be applied to other moral situations. Consequently the position he takes seems remarkably similar to the extreme utilitarian view of J. J. C. Smart, so ably scored by Eric D'Arcy in his *Moral Acts*, and to the situationism of Joseph Fletcher that has been subjected to such searching criticism by people like McCabe, McCormick, and Paul Ramsey. The basic defect, it seems to me, is that Van der Poel is too ready to conceal, in his description of the human or moral act, the physical or material "result" of the activity. To me, this is an exceedingly dangerous position.

Despite my fears that his position ultimately issues in a form of consequentialism, his work is thoughtfully presented, and many of his reflections on the dynamism and changing character of human morality are very much worthwhile.

WILLIAM E. MAY

The Catholic University of America
Washington, D. C.

For An Ontology of Morals. A Critique of Contemporary Ethical Theory. By HENRY B. VEATCH. Evanston: Northwestern University Press, 1971. Pp. 185. $6.50.

The title, no less than the name of the author of this book, will quickly suggest its content to the students and teachers of ethics familiar with Prof. Veatch's previous publications, especially, perhaps, his *Rational Man* published some ten years ago. Subtitled "A modem interpretation of Aristotelian Ethics," this was a defense of *rationality* as the foundation of moral values against the then prevailing, if not exclusive, reign of the linguistic analysts in American colleges and universities, competing only with a penetrating influence from the European existentialists. *For An*

Ontology of Morals breathes the same spirit of rationality with one significant difference: it is no longer a defense but rather an open invitation to these philosophers to take stock of the dead end which their ethics has reached.

Significantly enough for a discipline devoted to the study of human conduct, the reason for such an outcome for the contemporary ethics is not the lack of new publications but their irrelevance to life. The situation has changed within the last ten years to the point where " what the professors of ethics have to say appears no longer relevant to the countless moral and ethical issues that have suddenly exploded in the faces of today's youth-issues of sex, of drugs, of war and peace, of pollution, of the military-industrial complex, etc." (p. 3)

The arguments from life are, nonetheless, an implicit motivation rather than explicit subject matter of Prof. Veatch's book. Most of it is devoted to an analysis, or " structural history " as the author calls his method, of the recent developments among the analysts, the existentialists, and existential phenomenologists, with a particular emphasis on their significant departures from the original intransigence of their respective forerunners. Thus chapters II and III trace the development of Analytic Ethics from its early origin in Hume, Moore, and Ayer " with their determination to repudiate any sort of ontological foundation," through a subsequent stage of " embarrassment " as to whether without such foundation any ethical judgment is still a reasoned judgment, to what has become an "intricate array" designed to show how, within purely linguistic considerations, good reasons in ethics, or values related to facts, might still be possible without an appeal to ontology or the natural law. A similar development is traced in chapter IV in Existentialist Ethics. In spite of the heterogeneity of the two schools, there is, according to the author, a parallel attempt by both the analysts and the existentialists to have an ethics with good reasons but without metaphysics. The attempt is described as " the transcendental turn," an adaptation of the Kantian device to provide a justification for reality without appealing to reality itself. An example of it would be the justification of the validity of ethical statements by appealing to established practices and institutions without a further questioning of what justifies such practices or institutions.

Prof. Veatch's answer to this attempt is that it will not do. " When moral obligation is regarded not as being ontologically grounded in nature and natural norms and laws, but rather as grounded either in certain linguistic usages or in the free projects of the human subject, then ethics turns out really not to have any ground at all; and instead of any possibility of moral or ethical justification one is faced simply with nihilism." (p. 85) What is needed is " not a mere investigation of the language of morals, or even a phenomenology of morals, so much as an ontology of

morals." (p. 99) It is to this purpose that the remaining two chapters, " Some Proposals toward an Ontology of Morals," and " Transition to an Epistemology of Morals " are devoted.

Two basic and inter-related themes run through these last chapters: the possibility of a definition of goodness and the subsequent possibility of a scientific ethics. With no surprise, the aristotelico-thomistic ethics is brought into the picture as still the only sensible answer to all the open questions of contemporary ethics. Another dimension is gained when, in conclusion, the author decides to go behind Linguistic Analysis and Existentialism to consider their principal historical forerunners: Utilitarianism (desire-ethics) and Kant's deontological or duty-ethics. It is, he thinks, the unsuccessful attempt of these two systems to provide an epistemology of morals without ontology that both anticipates and forces contemporary moral philosophers to resort to the " transcendental turn."

One question running throughout Prof. Veatch's study remains, nonetheless, unanswered: what is an ontology of morals? As the author himself observes, to show the need for an ontology of morals " does not itself suffice to indicate what such an ontology consists in," (p. 99) and he makes clear that he aspires to no pretention of providing such an ontology in his present work. This, perhaps, was a wise decision, since the meaning of ontological morality calls for a much broader study inclusive of natural law moralists as well. The fact is that a great deal of criticism of an confusion about natural law ethics stems from a failure to properly differentiate the moral from the physical order (or ontology), for which at least some defenders of natural law morality bear partial responsibility.

The problem, an old one for that matter, of how to reconcile the subjective and the objective in human conduct calls for a continuous study, especially in our time of great emphasis on " personal responsibility and response" and even a greater need for objective morality. In this regard, *For An Ontology of Morals* is a beginning and not an end. A result, however, of both a sound philosophical position and a comprehensive knowledge of contemporary ethical thought, this book is a welcome contribution not only to the study of ethics but also to what the objective of ethical study should be in an age of so many pressing moral issues.

JANKO ZAGAR, O. P.

St. Albert's College
Oakland, California

Collected Papers (2 vols.). By GILBERT RYLE. New York: Barnes and Noble, 1971. 1 Pp. 301. $16.50. 2 Pp. 504. $19.50.

These two volumes include all Professor Gilbert Ryle's published writings, save for his books and a few reviews and obituary notices, up to 1968, when he retired from the Waynflete Chair of Metaphysical Philosophy at Oxford. But they do not include all his work, for already some further papers have appeared and we may reasonably hope for yet more; Ryle is still an active philosopher.

There would be little point in a critical examination of these papers, *seriatum,* at this stage. Some of the most influential, such as *Systematically Misleading Expressions,* were published in the early thirties, have already been much discussed, and no longer exactly represent Ryle's views. Such papers are now part of the history of philosophy. Others are on highly specialized topics, such as the authorship of the *Timaeus Locrus,* on which a casual comment in a general review would be worthless. The main critical interest in the volumes as a whole must lie in the broad view that they present of a substantial part of the life's work of a very eminent philosopher.

Volume I contains critical and historical essays on the work of other philosophers; Volume II contains Ryle's own original work. In the earlier essays in Volume II, as Ryle himself notes, three general interests are rarely far beneath the surface. The first of these is the nature and aims of philosophical inquiry; the second is ontology pursued in an economical spirit; the third is the general conditions of significant utterance. The nature of philosophy is the avowed topic of *Dilemmas,* not reprinted here, and of the Inaugural Lecture " Philosophical Arguments," which is. But the question is also very clearly raised in " Systematically Misleading Expressions," "Ordinary Language," and "Proofs in Philosophy," while some of the essays on more specific topics appear to be in part *specimina philosophandi.* There is no reason to suppose that the topic of the paper " On Forgetting the Difference between Right and Wrong" lacked intrinsic interest for Ryle; but part of its interest was surely to illustrate a type of absurdity which could arise from neglect of a certain type of conceptual nuance, which in turn illustrated the general nature of philosophical inquiry. On this topic Ryle's views seem to have developed but not radically changed. Initially, philosophy is regretfully assigned the purely negative role of showing the source of philosophical paradoxes to be the misunderstanding of idiom. Later, philosophy is more positively "conceptual cartography," the exhibition of the nature and interconnection of our concepts; but still the detection and even construction of absurdities remains an important methodological device. We learn about the legitimate roles of concepts in part by discovering what we cannot do with them and why.

It is superficially easy to see how this view of philosophy ties in with the more ontological papers. For one form of conceptual confusion that

can arise from misunderstanding language is to take expressions as denoting objects when they do not, or as denoting one sort of object when they denote another. By earlier calling Ryle an economical ontologist I alluded to the fact that Ryle finds us making over-long rather than over-short inventories of the world because of such confusions. Conceptual confusion is regarded as leading us to invent bogus entities, not to overlook genuine ones. So the papers " On Propositions " and " Imaginary Objects " exclude their subjects from the world, while " Systematically Misleading Expressions" gives us a set of recipes for exposing a host of pretenders. Nor is the interest in ontological parsimony purely an early one; the late papers on thinking arise from the need to give an account of thinking that will be sufficiently " thick " without resorting to bogus mental processes and objects.

At the same time these papers are concerned with general diagnoses of the conditions of significant discourse, as are those on " Categories " and "Heterologicality." The continual danger for the philosopher is that he will lapse into conceptual confusion rather than into falsehood. Some of these confusions will no doubt arise from the particular subject-matter, but others arise from violating the general conditions of significance, which must therefore be laid bare. The notion of a category-mistake is a partial diagnosis of these conditions, as is the treatment of the possibility of self-reference in "Heterologicality." The papers on the problem of meaning are also evidence of this continuing interest.

There seems to be a considerable tension between Ryle's economical ontologizing and some of his other views. As conceptual cartographers we should no doubt note the conditions under which it will be proper to say " There is no such person as Pickwick." But it is also proper to say that Sherlock Holmes played the violin but not the tuba. Should we not, then, merely note the conditions under which it is proper to refer existentially to Holmes's violin (but not his tuba) and those under which it is proper to deny the existence of the violin?

Ontology is a remarkable subject. Roughly, Plato denied ultimate reality to physical things because they lacked the eternal intelligibility of the forms, and materialists have denied the reality of all but physical things because they lacked the observability of physical things. But why must physical things be unreal because they are not forms, and *vice versa?* No doubt we may not talk of Pickwick as of Ryle, but after the philosophical chart has been drawn, what is gained by the final ontological judgment? J. L. Austin raised the same point in his review of *The Concept of Mind:* "Yet what has ever been gained by the favourite philosophical pastime of counting worlds? And why does the answer always turn out to be one or two, or some similar small, well-rounded, philosophically acceptable number? Why, if there are nineteen of any thing, is it not philosophy?" It is indeed hard to see how Ryle's other views leave room for ontological censorship, whether liberal or severe.

But the interest of these papers is not by any means confined to these general themes. The historical papers are very learned but yet fresh, original, and lively to an extent rare in this field. Modern Platonic studies, in particular, were largely initiated by these papers. The other, non-historical, papers are full of detailed observations on specific topics; no philosopher will be invariably convinced, but much is convincing and all is thought-provoking. Even the less generally accepted theses have profoundly changed all subsequent discussion of their topics. This collection brings home to us, more vividly than could its previously scattered contents, the impressive range and vitality of Gilbert Ryle's philosophical thought. And all is expressed in the well-known Rylean style, a strong, impeccable English, semantically and syntactically in accord with traditional standards, and yet as unmistakable and as individual as the more deviant style of Damon Runyon.

JAMEs 0. URMsoN

Corpus Christi College
Oxford, England

Origins of Astrology. By JAcK LINDSAY. New York: Barnes & Noble, 1971. Pp. 49fl. $1fl.75.

This work presents the most complete and up-to-date English summary of ancient astrology.[1] Its title is slightly misleading since one knows only very little about the "origins" of astrology (and this little has been told time and again before); consequently the main sections of the book concern the period from late hellenistic Egypt to about A. D. 300. It has good indices, a bibliography which is very difficult to use (most abbreviations are not explained), and many misprints. There are no references in the text to the 95 illustrations (all line-cuts, apparently made for this publication) the sources of which are nowhere given. The author rightly stresses the importance of the study of astrology and superstition for a deeper understanding of Greco-Roman cultural and political history-a statement often made and rarely heeded during the last hundred years. On the whole, the book is much superior to, say, Eisler's "The Royal Art of Astrology" (1946); on the other hand, it nowhere shows the secure touch of Bouche-Leclercq's "L'astrologie grecque" (1899) or of Cumont's "L'Egypte des astrologues" (1937). The final six pages of" Conclusions" seek to establish some affinity between the basic tenets of ancient astrology and modern astrophysics, where I cannot see more than purely verbal parallels.

[1] Only the German "Astrologumena" by W. and H. G. Gundel (Wiesbaden, 1966) cover about the same ground.

tion what parts of the text were only restored. In 1959 Van Hoesen and I republished the Greek text, dated the horoscope to A. **D.** 858, and showed that one essential restoration was wrong.[7] Now, in 1971 we have a new version in Fig. 80 (p. 871): the direction of the inscriptions are all placed radial, the letters N (inverted) and **H** are interchanged at random, restorations are not indicated, and Jupiter is back at the wrong place.

0. NEUGEBAUER

BroW'f/, University
Providence, Rhode Ialand

Oreatea A. Brownaon'a Road to Catholicism. By PER SVEINO. Oslo: Universitetsforlaget and New York: Humanities Press, 1970. Pp. 889. $II.50.

Per Sveino's book, which had its genesis in at Harvard University with the advice and encouragement of Professor Kenneth Murdock and the late Perry Miller, is in many ways a useful and valuable study. Yet it also has deficiencies in organization and exposition that in tum contribute to its inconclusiveness on issues that seem to me central to Sveino's whole enterprise.

One reason for the book's importance is that its topic remains one of the fascinating and challenging aspects of Orestes Brownson's career-the intellectual odyssey that led to his conversion, at age 41, to the Catholic Faith. The very fact that as a Protestant clergyman, journalist, and editor in the 1880's and early 1840's he was one of the leading spokesmen for liberal Christian thought and for Transcendentalism made his conversion on October 1844, one of the most significant-along with Newman's-in the 19th century. **It** can also be said that in view of Brownson's emphasis for so many years on Christianity as primarily a gospel of social progress, his conversion in the reign of the very pope, Gregory XVI, who condemned Lammenais, seemed to many a surprising *volte-face.*

Granted that much has already been written on Brownson's conversion, a further value in the book arises from Sveino's diligent research in many of Brownson's essays and reviews, especially those of the late and the SO's that were not included in Brownson's collected works, and have not, to my knowledge, been previously used by scholars in so full a way. While the evidence Sveino gathers from these sources does not lead to important revisions of what we already know, it does help to establish confidence in

' Jupiter in Gemini instead of in

the thoroughness of his research of primary materials. In short, while Brownson's son Henry, in the three-volume biography, and more recently Schlesinger and Maynard, have all dealt in some detail with the intellectual foundations of Brownson's conversion, no one, except Brownson himself in *The Convert* (1857), has devoted an entire book to the subject and no one has previously dealt with the subject in such detail.

The organization of the book is chronological, covering the period from Brownson's birth in Stockbridge, Vermont, to his conversion in Boston in 1844, with only brief treatment at the end of some aspects of his subsequent career.

In his first six chapters Sveino traces Brownson's development from his earliest years up to the year 1834 when he accepted an invitation to become preacher and minister to the Unitarian congregation in Canton, Mass., a few miles from Boston, a move which brought him into association with the group of writers and religious leaders who were developing the movement soon to be known as Transcendentalism.

While there is little that is new in these chapters, they do serve to place in sharper focus Brownson's early religious history as he successively turns from Presbyterianism, to Universalism, then, abandoning Universalism, becomes for a brief period an independent minister before accepting a call to the Unitarian pulpit in Walpole, New Hampshire, where he remains from 1832-1834. This is a period in which Brownson combines a career as editor and journalist with that of preacher and Protestant minister. It is also a time when his interpretation of Christianity takes on an ever stronger social dimension until he finally acknowledges that his main concern is with man's temporal well being.

Chapters VII, VIII and IX deal with the four important years (1834-37) when Brownson was preaching in Canton, Chelsea, and Boston, writing for such periodicals as the *Christian Register* and the *Christian Examiner* and becoming one of the leading intellectual figures of the period. Unquestionably the most important expression of Brownson's religious thought during these years was his first book, *New Views of Christianity, Society, and the Church,* published in 1836, the same year that saw the appearance of Emerson's *Nature.* Sveino devotes a full chapter to this book and gives an excellent analysis of its thesis in the context of Brownson's development up to this time.

Chapters X through XIII focus on the four-and-one-half years (1838-42) during which Brownson established, edited and managed almost single-handed *The Boston Quarterly Review.* These were years of dramatic change and development first in Brownson's political and social thought and then in his whole approach to historical Christianity and to the Church. The course of his development can be traced in the pages of the review, and it is one of the great merits of Sveino's book that these four chapters

show a close and critical reading of the numerous and lengthy articles Brownson wrote during this period.

In Chapter XIV, "Conversion," Sveino analyses the changes in Brownson's philosophical and religious position in the period 1842-1844. As Sveino rightly emphasizes, Brownson's study of Pierre Leroux in this period is of central importance. Leroux's epistemology leads Brownson himself to a more objective theory of knowledge which sharpens his previously tentative criticism of the philosophical assumptions of Transcendentalism. Though he was not aware at this time of the scholastic distinction between the existential modalities of objects in the universe of things and in the mind, Brownson glimpsed the truth that the escape from radical idealism could come only through a theory of knowledge that affirmed the intentional existence of the object in the mind. Brownson also took from Leroux the doctrine of " Providential Men " and the idea that man lives by communion with what is not himself, with nature, with his fellow-man, and with God. It is this process of thinking, as Sveino shows, that led Brownson in 1843-44 to his first serious examination of the claims of the historical Catholic Church. He began taking instructions in May, 1844, and was received into the Church on October 20, 1844.

In his final chapter, Sveino gives a summary of the stages on Brownson's road to Catholicism and some reflections on the significance of Brownson's religious thought.

Since Brownson was not primarily a theologian, a philosopher, a social critic, or a literary critic, but a general critic and journalist, and since he was author of hundreds of essays but few books, there is justification for Sveino's method of analyzing his career in chronologically arranged chapters that take into account a wide range of his writings and activities. Yet the method as Sveino employs it has serious limitations. That his study should go over once again much of the ground previously covered not only by Brownson himself in *The Convert* but by his son Henry in the *Life*, and by Schlesinger and Maynard in their books-not to speak of numerous scholarly articles-is defensible. Yet to focus sharply on the history and development of Brownson's religious opinions up to 1844, even though these opinions have been dealt with in more general studies of Brownson's entire career, should also be to expand, clarify, corroborate, and in places to correct the most widely accepted account, or to adjudicate conflicting interpretations where that is possible in the light of the evidence. Above all, one could wish for an expository method that would not only document sources and marshall evidence, as Sveino does, but would also finally provide a clear and economical statement of the stages on Brownson's road to Catholicism.

Instead, the flow and movement of the exposition is too frequently clogged and impeded by the excessive use of quotations which are not sufficiently subordinated to the author's argument nor clearly incorporated

into the texture of his own style. There are, for example, more than 1200 footnotes (Chapter X alone has 182) and since little is "securely kenneled in the rear" except the citation of the work and the page reference, we are often inundated in the text itself with lengthy quotations. At its worst, the method gives the impression of a collage of quotations, and the reader is left puzzled as to the main outlines of the exposition. This is especially true in certain sections of the book where quotations are introduced without the careful regard for chronology that it so important in tracing changes in Brownson's thinking-changes that often occur within a short span of time.

For example, Chapter V, "The Religious Sentiment," begins with Brownson "offering his service as minister to the Unitarian congregation at Walpole," (p. 77) though neither the date nor the location of Walpole in New Hampshire is given. Sveino then gives a three-page summary of the tenets of American Unitarianism, with references to such Unitarian thinkers as Joseph Priestley, Henry Ware, Andrews Norton, and William Ellery Channing. Not until p. 80 do we learn that Brownson was accepted by the congregation at Walpole, and only after Sveino has quoted from an 1851 essay by Brownson on his debt to French literature do we return on p. 82 to 1882 and Brownson's intensive study of Benjamin Constant that was one of the intellectual landmarks of his Walpole experience. This failure to impose order on the material, to distinguish between the outward facts of Brownson's odyssey and his intellectu8l history, and to subordinate necessary historical background (much of which could go in appendices) is characteristic of many sections of Sveino's book.

While these inadequacies in exposition are distracting, and at times confusing, they affect the substance of the argument in only a few places. These are the passages where Sveino himself seems to become entangled in the multiplicity and complexity of his own evidence. The most crucial instance occurs in the final chapter, where he compares Brownson's approach to the Catholic Church with Newman's, and devotes considerable attention to Brownson's interest in Anglicanism and in the Oxford Movement. In my judgment he somewhat exaggerates its importance. Even more serious is Sveino's blurring in this chapter of distinctions he had previously made between Transcendentalism and Catholicism and between the approaches the two converts made to the Catholic Faith. Had Sveino given careful consideration, for example, to Brownson's sharp criticism of Newman's *Development of Christian Doctrine* in the series of essays that began in the July, 1846, number of *Brownson's Review*, I do not see how he could have suggested, as he does, that "Brownson's conversion was conditioned by Transcendentalism, 'transfigured' or at least supplemented by a belief in 'the wisdom' of tradition, above all the Christian and churchly tradition." (p. 808)

In his lengthy review, Brownson focussed on certain passages in Newman's essay, especially objecting to terms like "instinct" and "feeling" and to Newman's statement that Christianity "came into the world as an idea rather than an institution." At least as Brownson read him in 1846, Newman seemed to be proposing a doctrine all too close to the one Brownson had held as a Transcendentalist" and which for years," in Brownson's words " kept us out of the Catholic Church as it now keeps out the greater part of our former friends and associates. Assuming that Christianity came into the world originally as an idea, and not as an institution ... we held that by seizing it anew, abstracting it from the institutions with which it has thus far clothed itself ... we might organize through it a new institution, a new church .... " (Brownson, *Works,* Vol. XIV, p. 14) While in 1864 Brownson acknowledged that he had misunderstood Newman, he continued in his Catholic years to look on Transcendentalism as a form of " learned gentilism " or " gentile rationalism." This being so, some of Sveino's attempts in his" Concluding Thoughts" to draw parallels between Brownson's and Newman's conversions and to accomodate Brownson's Transcendentalist phase to his thought as a Catholic are misleading.

Despite the fact that the book is uneven in quality, it contains many illuminating passages; the whole treatment, for example, of Brownson's response to Theodore Parker, is impressive. There were great difficulties inherent in the subject-the sheer volume of Brownson's writing is formidable-and by Sveino's own testimony in the introduction there were many interruptions in the research and writing. Though such circumstances might tempt one to over-simplify, Sveino follows the course of Brownson's religious thought in faithful adherence to all its tacks and turns. Since Brownson did so much to bring European thought to bear on the American experience and the great issues of his time, there is a special appropriateness in the publication of this study of Brownson by a Norwegian teacher and scholar in American studies.

ALvAN S. RYAN

University of Massachusetts
Boston, Massachusetts

La crise de l'information et la crise de confiance des Nations Unies. By ALPHA AMADOU Switzerland: Editions Universitaires Fribourg, 1971. Pp. 144. Fr. 18.

The title of this slim volume promises much more than it can deliver. Both the UN information services and whatever current crisis of confidence the organization is passing through are subjects of periodic review and frequently of in-depth analysis. This little book is published as a "study " in the field of social communication. It reads more like a term paper, with dutiful footnotes but with lapses into sweeping generalizations and recommendations that contradict facts accepted in the study itself.

It is obvious from the text that the author's UN experience is limited to the UN's European office in Geneva (we learn only in passing that he has spent four years in the secretariat but not in what capacity). His drastic criticisms of the information services for correspondents accredited to the UN and of the Visitors' Services, for example, are not true of UN headquarters in New York, although he implies they are. Though he cites his observations in four African countries, one wonders on what he bases the statement that " no one " ever hears any of the UN's radio broadcasts, which go to 120 countries-either live or taped-in 28 different languages. The interest manifested in them by some delegates to the last General Assembly would seem to qualify, at least, his categorical conclusion.

Anyone familiar with the UN and how it works will be entirely thetic with Mr. Diallo-Tayin?s laudable concern for more information on the UN in attention-getting form, more materials on development capable of capturing the interest and sustaining the enthusiasm of the general public. These are also concerns of the UN itself as evidenced in several resolutions on "public information " and a fairly long document on "mobilizing public opinion " for development. Where one parts company with him is in the remedies he proposes, which are unrealistic if not singularly naive. And one is bound to regret, too, that the limitation of space, which he invokes, results in a mere nod to certain factors, a fuller treatment of which is essential to his thesis.

In discussing the "information crisis," Diallo-Tayire recognizes the great importance of the mass media, especially in this day of electronic communication. He then accepts the judgment (quoted and footnoted) that the mass media do not form public opinion but rather reflect it. He recognizes that public opinion is fickle at best and compounded of emotion, traditions, local customs, self-interest, etc. He also accepts the fact that development cannot take place without the involvement of the "man on the street." Then, as an example of UN information failure in the development field, he takes only one example, the rather dull and meager tions of the UN Conference on Trade and Development (UNCTAD, which

is headquartered in Geneva) and pays no attention to the fact that this agency deals with the intricate complexities of trade and snail-paced negotiations-hardly the stuff for popular readership.

To remedy the "failure" the author then proposes the elimination (for cost-benefit reasons) of certain specialized agency publications, including UNESCO's *Courier,* WHO's *World Health,* and FAO's *Ceres,* which are the most readable, appeal to a special interest audience and perform much of the " promotion " or public relation function he advocates. They are also issued on a subscription basis. Instead of these and several other publications he would have a weekly newspaper of about 20 pages in the style of *France Soir* and modeled after the *Osservatore Romano.* The latter, in his view, defends the Holy See against mistaken criticism, corrects false reporting and " reflects the international Christian community." Presumably the paper he suggests would do the same for the UN. Just how such a paper would present in human terms an " international viewpoint " that would reach the " man in the street " in 133 countries, with all their separate local, traditions, customs, priorities, and hundreds of different languages, and would fire him with enthusiasm for " development " boggles even the non-journalistic mind.

Mr. Diallo-Tayire quite rightly states that the UN is not some form of super-government, that it can do only what its Member States allow it to do, and that it is these Members that have the primary responsibility. Then for the " crisis of confidence " he takes peace-keeping, using as an example the chronic Middle East conflict. For this confidence-crisis he blames, with some justification, the continued involvement of the " Big Powers " (i. e., the US and USSR, Mainland China not having yet entered the UN when the book was written). He then proceeds to state that the UN-which he treats as a superentity-should assume " its " responsibilities and in its information services " denounce " the " scandalous behavior " of the Big Powers. Criticism of the Big Powers is evident enough in UN debates-and the relevant press releases-and it obviously reaches the press in a number of countries. Quite apart from this, however, the author chooses to ignore the mandate of the UN Office of Public Information (OPI), explained to him in an interview by William Henson, head of the Geneva UN information section, although the interview itself is included in the book as an annex.

This mandate was laid down in the 1946 General Assembly resolution which set up the UN information services, and it has been reconfirmed in subsequent resolutions in 1952 and 1971. The OPI was set up primarily to assist and rely upon the cooperation of the established governmental and non-governmental agencies of information in order to provide the public with information about the UN. It is expressly forbidden to engage in " propaganda," in other words, releases, pamphlets, reviews, and other

publications must be simon pure of any political slant or bias. The OPI must just tell the facts.

There is no question that this restriction is inhibiting. It accounts for the frequently colorless and antiseptic tone of much that the UN puts out, while " documentese " becomes a kind of subtle contagion for anyone working all the time in a UN atmosphere. There is also some difference of opinion in the OPI itself between those strictly faithful to dry reporting and those convinced that information must also do a selling job. The latter viewpoint is more characteristic of the specialized agencies, UNICEF and the UN Development Program, all of which have their own information or " support " services, and tend increasingly to use the personal or human interest approach.

In 1950 the OPI budget was about 9% of the total UN budget. Now that the organization has mushroomed to a membership of 133 and a conspicuous increase in its programs and agencies, the OPI budget has fallen to about 4%. Its principal publications have a run of about 10,000-15,000 but not in all the UN's five working languages. The UN relies rather optimistically on member governments and non-governmental organizations (NGOs) to publish translations in other languages, a cooperation not often provided by governments, especially those which, like the NGOs, have not the funds to do so. Meanwhile, special committees, like those on apartheid and decolonization (which are most dear to the African members) keep requesting intensified information programs on their particular meetings and areas of concern, without, however, voting or providing any additional funds. Hence it is a little difficult to accept the author's dismissal of the financial question.

Correspondents and other media representatives, of course, tailor their stories to their home countries and markets. In addition, over 300 international andjor national NGOs have representatives accredited to the Office of Public Information who also disseminate UN information, interpreting trends, programs, and activities in terms of the interests of their respective organizations. UNICEF, UNDP and other agency information is also funneled frequently through non-governmental organizations. Evidence of increasing awareness of their usefulness are the regional seminars for NGOs now becoming an OPI feature. One was held for Africa in Addis Ababa, along with an editors' round table in 1971 and one is planned for Latin America, in Buenos Aires, in August of this year.

Diallo-Tayire rightly points out early in his study that much of the "crisis" is due to insufficient or ineffective information about the UN and to lack of understanding of what it is and how it works. About four delegates from developing countries to the last General Assembly also shared his desire for more UN " propaganda," understandably impatient with the slow processes of the international community. But there were

several others who felt just as strongly that any slant in UN publications or any propagandizing would endanger their credibility and therefore their acceptance.

The UN Institute for Training and Research has been working for several months on a survey by country of the impact of UN information. The results, to be published some time this year, may well confirm those criticisms which many share with the author, including the lack of national governmental cooperation even in telling the UN story.

But he perhaps gets closer to the heart of the matter when he says, at the beginning of his essay, that words like "peace," "justice," "friendly relations," " cooperation " are used and abused so much that they have lost all meaning and impact and when he recognizes the enormous competition for the public's wayward attention any UN information invariably encounters. But there is little in this work for anyone genuinely concerned with either the improvement of UN information of the restoration of confidence in the organization.

ALBA ZIZZAMIA

United States Catholic Conference
Office for U.N. Affairs
New York, N.Y.

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