

STUDIES IN THE LOGIC OF EXISTENCE-STATEMENTS

by

HOWARD R. FRIEDMAN

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QUIA ANIMO SOLUMMODO INVESTIGANDI....

For my aim is investigation, pure and simple....

OCKHAM (1) p. 2.

Perhaps the day will come when philosophy can be  
discussed in terms of investigation rather than controversy.

GOODMAN (1) p. xviii



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## SUMMARY

Within this thesis we ask: How can one account for the perennial appearance of apparently well-reasoned, mutually incompatible ontologies. A preliminary discussion clarifies the meaning of 'incompatible' and shows that a distinction can be drawn between predicative and existential uses of 'exist'. Only these latter concern us.

[Preface - Ch. I].

We proceed to study different explanations for the appearance of incompatible ontologies [Chs. II-III]. Among these we select a classical [Ch. II] and a linguistic approach [Ch. III] for further analysis. We show that a necessary condition for the assertion of the former is the categorical provability of the existence-statements contained within an ontology [Ch. II #3, Ch. V #5-6]. Similarly a necessary condition for the assertion of the strong linguistic approach --which we analyze-- is that the rules for the use of 'exist' be felicitous [Ch. III-IV, esp. IV #7].

Our purpose in analyzing these approaches is to argue that their presuppositions are not generally satisfiable. Thus in Chapter VI we develop a theory of concepts and then apply this to show that the presuppositions of the classical explanation and of weaker but related approaches, in respect to proof and the unicity of truth, are not satisfied [Chs. VII-IX]. Since this analysis is somewhat complex we introduce an unusually detailed summary of this in Ch. X #1. As for the linguistic approach, we argue that the strong thesis -- that all philosophic problems are due to a misuse of language -- introduces conditions that few if any natural languages can satisfy [Ch. XII 7-9].

But if one cannot show, as the former approach claims, that there are incontrovertibly true statements of sufficient generality to establish one unique body of self-consistent existence-statements, then some propositions contained within an ontology -- if significant -- are merely unfalsifiable. And if all philosophic problems are not due to a misuse of language, then issues concerning existence may arise in a stratum of language in which the rules, say for the use of 'exist', are incomplete, i.e. defective. Thus inasmuch as some existence-statements are, at best, unfalsifiable, issues concerning the truth or falsity of existence claims can develop when language is correctly used. If one accepts this alternative approach, which we call the 'theory of permissives', it follows that there can be mutually incompatible, severally viable ontologies [Ch. IX #4-9, esp. #7-9; Ch. X #2-3; Ch. XII #5-12].

An analysis of historically important ontologies confirms the first tenet of this approach: there are some propositions in each theory studied that are merely unfalsifiable [Ch. XII #1-4]. Similarly a study of the language forms employed in the expression of an ontology partially confirms the second tenet: with the exception of 'exist' (which is still unanalyzed), the other terms appearing in this sub-section of language are not definite but schematic, and as such can be used in different ways [Ch. XI].

It remains to be shown that the rules for the use of 'exist' are also indefinite and thus sanction the development of mutually incompatible, severally tenable ontologies -- and lastly that the existence-statements contained within them are significant. To do this we introduce a theory of units [Ch. XIII #1-12] and then define 'exist' as a binary predicate-term for the relation that obtains between a unit and a

universe of which it is an element or constituent. 'Exist' in terms of this definition-schema is multiply ambiguous. It follows from this that there are no theory-free existence-statements, and further -- the assertion of a possible ontology does not depend upon what is the case, but the converse [Ch. XIV #1-9]. We show too that existence-statements, when fully specified, are meaningful [Ch. XIV #2, ff.]. A general summary of the argument appears in Chapter XIV #11.

That these latter conclusions are relative to the use of a particular definition-schema of 'exist' is in no way a defect of this analysis. For we argue throughout [esp. Ch VIII #8-9] that all demonstration of this kind is conditional.

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Finally we wish to bring the reader's attention to the distinction we establish between 'sanction' and 'warrant' in [Ch. IV #6]; and to our use of 'predicate' as a generic term for properties and relations, and to the use of 'p only if q' as truth-functionally identical to 'if p then q'.

## PREFACE

#1. A thesis in philosophy may often prove difficult reading. This present study of existence-statements, I fear, is no exception. Perhaps then some remarks about the perennial issues of philosophy may prove helpful. For certain general features of these recurrent problems provide the point of departure for this study.

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#2. By 'perennial issues of philosophy' I refer, for instance, to problems concerning the ontological status of abstract entities, or the notion of self-identity, or the warrantability of values, or of the relationship of our knowledge to whatever is the case, etc. And certainly one feature common to all the above is that although their guise may change from age to age, like old soldiers these issues never die.

Let us consider this matter further. If 'C' is the name of some subject or concept in need of explanation (e.g., 'C' could denote Existence) it frequently appears simpler to inquire not what C is, but what 'C' means. But the mere transference of a problem concerning C to the linguistic plane does not so much remove the offending issue, as scotch it. For if the initial difficulty is genuinely perplexing, 'C' surely does not wear its meaning on its sleeve either. The initial question: What is C? is now joined by: What is the meaning of 'C'? And soon a whole brood of further problems appears: What do we mean by 'meaning?', What is a word?, What is predication?, etc. Nor can one wholly avoid this difficulty by pointing out the presence of linguistic errors allegedly responsible for the initial issue. For a manoeuvre of this kind soon proves in itself a fertile ground of fresh disputes.

Among others, these concern the concepts, expressions, and methods employed in such analyses: concepts such as that of Logical Grammar, expressions such as 'rule for the use of 'C'', and methods such as that of dissolving philosophic issues. And thus we start again with a fresh set of concepts in need of explanation. Or alternatively, we continue developing the spiral of questions upon a higher level.

The above process of inquiry may be considered typical. It seems that whenever the nerve of certain issues is touched at any point, conceptual tensions proliferate throughout a vast area. It is not just one question which must be answered, or dismantled. But on the contrary — since the soundness of any solution concerning C depends upon the soundness of one's analysis of each premise and concept employed in such a solution — all the truth values and inference-warrants in an entire network of propositions come under fire.

Thus, as in mathematics, the appearance of a fundamental problem in philosophy heralds the discovery of further problems. But in the latter, unlike mathematics, a peculiar air of insolubility hovers about philosophic issues. It would be instructive to consider the differences between the disciplines in this respect. A problem in mathematics, i.e., a fundamental issue, generally appears whenever the conceptual structure of mathematics, and its associated language, is rich enough to express some proposition, but too weak to assign a definite truth value to it. In other words the mathematical system at that time is incomplete. (For instance, the expression  $\sqrt{-1}$  is not  $>$  and not  $<$  than 5' was formulable within the language of sixteenth century mathematics, but its truth or falsity could not be decided in terms of existing theories.) As we know, the typical method



of solving a problem of this sort is to introduce a generalized theory which successfully assigns a definite truth value to the perplexing expression and at the same time includes the previous theories as parts of the new theory. In this way the scope of mathematics, and the class of provable theorems contained within it, is enlarged. Mathematics thrives on the blood of its own problems.

Contrast this with the history of philosophy. Fundamental philosophic issues appear when conflicting truth values can be assigned to the same proposition and apparently good reasons can be adduced to support each such assignment. (Were this latter not the case, the issue would no longer trouble one.) Thus truly recalcitrant problems develop in philosophy whenever the totality of propositions and inference-warrants accepted at a time is not so much incomplete, as <sup>apparently</sup> inconsistent. (Or perhaps it would be better to say -- in view of the presumed logical looseness of natural language -- that in such a case the totality of propositions and inference-warrants displays features analogous to those of an inconsistent formal system.) This, of course, is occasionally also true in mathematics. But nevertheless a *prima facie* legitimate assertion of mutually incompatible propositions is exceptional in mathematics. In philosophy, it is often the rule.

The completion of a hitherto defective theory, as in the case of mathematics, strengthens the entire discipline, but the presence of a contradiction in a body of propositions is quite another matter. For then any or all of the statements hitherto accepted as true may be false. The ferreting out of such a contradiction is in many respects like the unravelling of a sweater. Given sufficient time, we either ravel back

until we reach some incontrovertibly true premise, or the structure disappears. Perhaps someone might object that neither of these two outcomes seems to be the case in philosophy. But I propose -- if this is so -- that it is probably due only to a lack of patience. And I suspect if we were to unravel with sufficient diligence, we would reach not the Form of the Good, but the end of the yarn.

If some incontrovertible warrant exists which assigns truth to some premises, then the task of discovering the offending proposition (s) among the remainder is simplified. But if any such warrant is not forthcoming, the initial perplexity and/or its progeny in the history of ideas remain unsolved. For then no assignment of a truth value to any self-consistent statement can be unconditionally certain.

With this in mind, one task of any investigation such as this -- which is concerned with what may be the oldest issue of philosophy -- is either to discover such incontrovertibles, or to alter our conceptual set in such a way that the viciousness of this unravelling regress is vitiated. Since it is unlikely that we can accomplish the former, we shall attempt the latter.

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#3. But now to return to C and 'C'. If a satisfactory analysis of C, or of the meaning of 'C', continues to escape us (as elude us it may, for by hypothesis this is as evasive as truth in the mouth of an automobile salesman) a second strategy suggests itself. Namely to declare the whole of the expression containing 'C' explicable. In this way some philosophers may then claim that utterances of this kind (one of which we shall symbolize as '...C...') are pseudo-statements, and as such are nonsense; or what when '...C...' is rewritten in a logically acceptable

manner, 'C' disappear as a component of the expression -- and our problem with it; or that the rules of the language-game in which '--C...?' appears, have been broken.

Although we are now concerned with whole sentences (and questions too) in which 'C' appears, there is still one feature common to all the above approaches. It is the assumption that somehow it is our understanding specifically of 'C', or of the use of the concept, C, or of expressions involving 'C' that is at fault. For what else could it be? The answer is obvious. The fault does not lie in C, 'C', or '...C...', etc. but in something else. Let us now go back to view this problem from another angle.

I mentioned, apropos of mathematics that the introduction of progressively more general theories enables the discipline to develop. This, of course, is not an exclusive feature of mathematics. For instance Wittgenstein's discussion of philosophic problems in "Philosophical Investigations" begins with an analysis of the specific misuses of language -- such as those concerning the word 'simple' and the proposition 'This is the way things must be' -- which had led him astray in his "Tractatus". And yet both his language and his work suggest that the theory of philosophic problems which he develops in dismantling the "Tractatus" is applicable to all philosophic issues. In this way this development is similar to the above noted feature of mathematics. However, although he describes a general cause of philosophic problems, Wittgenstein makes it clear that the only way to show the correctness of this generalization is to apply it in the analysis of particular issues. For instance within "Philosophical Investigations", which we shall abbreviate (INV), he writes:

Problems are solved (difficulties eliminated), not a single problem.

Es werden Probleme gelöst...nicht ein Problem" (INV) - 133.

This latter feature, for those who regard simplicity and logical power as virtues, may be seen as a defect. For in contrast to this, it is possible to conceive of a theory along the same lines, but one in which philosophic issues as a type can be shown to be derived from one common error. Such a theory might question whether we do in fact understand the manner in which extensive sectors of our language actually work, and particularly the stratum of language in which philosophic trouble-makers appear. To put it another way, might there not be a language-game in which these other particular language-games of 'exist', of 'good', of 'know', etc. are played? If this is so, and we were to overlook certain general features of the former, it little matters how astute our studies of specific issues might be. (If we are convinced that spaghetti is to be cooked in cold water, it profits us little to discuss whether one should have added the salt.) Thus, according to this hypothesis, failure to appraise the overall logical characteristics of the contexts in which philosophic words appear -- words among which 'existence' certainly has a place -- may distort all subsequent studies of the particular language-games contained within them.

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It is for this reason, that/this study of the logic of existence-statements, our first question concerns neither existence nor 'existence', but the appearance of philosophic problems in general. This is the subject matter of Part One, the Introduction to this thesis.

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#4. Part Two is devoted to a study of certain assumptions concerning the general features of existence-statements, particularly the belief that such statements are in some sense provable. We ask in particular: Are existence-statements unconditionally provable? Our study suggests a (generally) negative answer. If this is so, it seems then reasonable to ask: What, if any, is the general role of such propositions within our discourse?

It is obvious -- along the lines we have indicated -- that if existence-statements and other sources of philosophical perplexity, all play some general role within a language-stratum, then any failure to take this into account may itself be responsible for the continued presence of problems associated with these words. But equally obvious, such characteristics (if there were such) would have to be sly and queer to have escaped notice. We argue this: the appearance of mutually incompatible existence-statements need not indicate in themselves that one at least of these assertions must be considered false.

Actually this conclusion is far less audacious than it seems. But to make this credible, we must establish the fundamental premise of the theory which supports it. This latter involves what we call 'logical permissives': propositions with the peculiar feature of being neither demonstrably true nor false, but merely unfalsifiable in terms of an accepted body of statements. Most of Part Three is devoted to a study of such propositions and their use in theories of existence. We then establish a definition of 'exist'. (A definition which I learn now, may have been known to Abelard.) Although simple, the substance and import of this we will leave to a fuller discussion within the body of the text. We do however include further details within the summary.

PART ONE

INTRODUCTION

## CHAPTER ONE

### Philosophic Problems and Incompatible Ontologies

#1. This thesis begins in discontent. I am not satisfied when I hear assertions of the form: 'Everybody knows that such and such exist'. Although I have only intuition as an initial guide, a strong impression remains that the arguments advanced to support such claims serve more to rationalize pre-existing beliefs than to justify them.

This impression is further enhanced when I weigh within my mind what other thinkers have written, namely that the entities (whatever they may be) that are mentioned by the speaker do not exist, at least not in the intended manner. For I am loathe to think that apparently reasonable men should have made such counter claims, and disputed with each other, unless they saw good reason for this. For just as the past has no monopoly on fools, we of the present cannot expect sole proprietorship of truths.

'But our beliefs' the speaker replies 'are based on common sense'. Or are they? And is this a justification? For me it also stands to reason that it is the worst of sense to consider any belief, inasmuch as it is deviant from common sense, necessarily aberrant. In this I do not wish to condemn either common sense nor the intuitions upon which it is based. But I wish to hobble this dull steed, lest it track up all the demesnes of philosophy.

It is possible that philosophers -- and particularly metaphysicians -- err as it were by definition; that their recurrent and often acrimonious strife is fundamentally of no more lasting concern than is

the despicable sequence of battles and meaningless wars which have disfigured our planet. But it is also possible that there are good and lasting reasons for philosophic disagreements, and that these reflect built in features of the way we must both think and talk at certain times. By this I mean to suggest that the current explanation -- that philosophic problems are due to a misuse of language -- may be a half-truth that casts into obscurity an essential characteristic of philosophic activity. For how can we be certain, a priori, that two apparently incompatible existence-assertions may not both be tenable?

(If by 'tenable' we mean that such existence-statements, together with others associated with them, are true, it is clear -- if the principle of contradiction can be said to apply here -- that any two such mutually incompatible propositions cannot both be true. I am afraid I do not share my colleague's general faith in the unrestricted vigor of this principle. Although I admit that any limitation imposed upon its scope has awkward consequences. This is however a matter for another time. For the present, let me cover my flanks by insisting on the prima facie incompatibility of these propositions.)

For what I am suggesting is that it may indeed be worthwhile to pay attention to the pattern of claim and counter-claim which philosophers, and other thinkers, make in their discussions of the most general features of what there is. For who can know without investigation whether the appearance of these differences is due to error? Perhaps our rejection of all but one of the opposing claims as impossible, because incompatible, is itself an error?

To investigate this further, it would be well to introduce various



examples of claims and counter-claims. It is of course not the content of these positions which interest us, but the schematic form of the opposition which they express. Accordingly we shall not be troubled, as an investigator of a particular philosophy might be, with whether or not some of the statements within the examples may be due to a misuse of language, or to a failure to discern the relevant distinctions, etc. The basic point which these will serve to illustrate is clear: irrespective of their aetiology, there are certain types of issues in philosophy for which each conceivable answer that can be advanced, is asserted. And further, the occupancy of any position -- provided it is not manifestly self-inconsistent -- seems to be strangely invulnerable to attacks launched upon it by advocates of other positions incompatible with it. And this seems to be true whether an issue is discussed in the archaic vocabulary of the Pre-Socratics, or at the latest meeting of the Aristotelean Society. But let the reader take note, this observation is not introduced to condemn philosophic activity. Rather we note it, are puzzled, and wonder.

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#2. So much in the way of generalities. Let us now consider two examples of philosophic issues. The first is an old one and may well strike the reader as more aged than venerable. But I have chosen it specifically because the perspective which time affords, permits one to observe/<sup>within it</sup>the structure of the eternal clang between opposing positions more clearly than if one immersed one's mind in a hotly debated contemporary issue. So let us turn first to this aged question: What is? i.e., what can be truly said to exist? Of what in the most fundamental sense is the universe constituted?

We shall, happily, refrain from investigating all answers to this question...Those which concern us will employ the expressions, 'one', 'corporeal', and their respective negations, i.e., 'many', and 'incorporeal'. We shall see that different philosophers have expressed (and we assume have argued for) positions in which all (or nearly all) possible combinations of these terms have been employed. Let us start with Parmenides.

- i) Parmenides, we know, asserts that the One Being is motionless, that it rests in one place, that it is stable, and that it is equally poised (KR) - 350, 351. Terms such as 'motionless', 'in one place', etc. are of course adjectives one normally ascribes only to physical objects or structures.

As J. E. Raven writes:

[The Eleatics] thanks merely to the date at which they lived, were so subject to the universal preconception that 'Being is just so much as is sensible' that they end in a corporealism hardly less total...than that of the Milesians" (KR) p. 216.

Whether or not Raven's knowledge of the archaic mind is correct or not, the use of physical terms by Parmenides to describe Being is indubitable. Further, if (as Plato suggests) Zeno's arguments are introduced to refute the position of Parmenides' critics, by reducing the latter's assumptions to absurdities, it is curious that all of Zeno's arguments, in one way or another are refutations of the assumption that things are many. If Parmenides also advocated an incorporeal Being, why should no arguments of Zeno be known which prove the impossibility of the One's being corporeal?

Thus it is certain that for Parmenides, Being is one; and it seems quite likely that he asserted that it was at the same time corporeal.

Melissus is a dissident follower of Parmenides. In one account of his philosophy, we learn:

ii) Melissus makes it clear that what exists is incorporeal.

For he writes that if there is Being, it must be one and --  
since bodily objects are divisible -- it can have no body.

(The above citation is based upon KR - 391, which I have paraphrased.)

Thus, whatever Being may be, Melissus claims that it is one and incorporeal.

We have seen in the above how the term 'one' is used in combination respectively with 'corporeal' and 'incorporeal'. Let us now consider the term 'many', i.e., 'not-one'. And let me stress again that these are all answers to the same general question: Of what is the universe constituted? To this question, Democritus replies, in an account about his thought:

iii) ...the elements are the full [material atoms] and the void  
[in which they move]... The two together are the material  
causes of existing things" (KR) - 554.

...the first principles (are) infinite in number" (KR) - 556.

Being is thus many and corporeal.

The fourth combination is reported by Plato to have been asserted by philosophers whom he calls 'Friends of the Forms'. Whether these philosophers were early followers of Plato, perhaps the early Plato himself, or followers of Pythagoras -- for whom the universe was made up of numbers-- or perhaps even imaginary philosophers in a sort of Platonic

language-game, we do not know. But in any case their position is clear:

- iv) [The opponents of the materialists] cautiously defend themselves from above, out of an unseen world, mightily contending that true reality consists of certain intelligible and incorporeal Forms; the bodies of the Materialists...they affirm to be not being, but generation and motion" Plato (1) 246 b-c.

For these mysterious thinkers Being then is many and incorporeal.

We have now exhausted the possible binary combinations of 'one', 'corporeal' and their respective negations. One can, of course, also conceive certain trinary combinations of the above. Two at least are employed by important thinkers.

- v) For Spinoza, as we know, Substance is one and unique, but it is at the same time both corporeal and incorporeal. For matter and thought (or spirit) are co-extensive throughout.

Within the loose terminology we have been employing, we can say that the universe of Spinoza is both one and at the same time corporeal and incorporeal.

Now let us turn to Plato:

- vi) There is one kind of being -- that of the Forms -- which is imperceptible to any sense, and the contemplation of this is granted to intelligence alone.... [Everyday objects] which are patterned after them....exist as fleeting shadows of the former" Plato (2) - 52.

If we consider everyday objects to be corporeal, and objects imperceptible to sense to be immaterial, then Being is many and both corporeal and incorporeal.

Accordingly, give or take some for the inevitable differences in terminology, all (or nearly all) conceptually possible combinations of 'one', 'corporeal', 'many' and 'incorporeal' are employed by some philosopher of note in his reply to roughly the same initial question. Let us show this result thus:

	One	Many	Corporeal	Incorporeal
Parmenides	X		X	
Melissus	X			X
Democritus		X	X	
Friends of Forms		X		X
Spinoza	X		X	X
Plato		X	X	X

If we use the following symbolism, the logical relationships between positions can be seen more clearly. Where 's' stands for 'the stuff or stuffs out of which the universe is constituted' '0' stands for 'one', and 'C' for 'corporeal', the first four positions can be written:

- i) s is 0 and C
- ii) s is 0 and not-C
- iii) s is not-0 and C
- iv) s is not-0 and not-C

Each of these positions is such that if any one is true, all the others are false. Further if we assume that the universe is constituted out of some stuff or stuffs, then one and only one of these positions must be true. (I shall not attempt to symbolize the positions of Spinoza and Plato, but it is clear, under the same assumptions as above that the two positions

are mutually exclusive.)

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#3. But perhaps the above positions and the claims made within them may appear quaint or stale, based on premises and grounded in patterns of thought which strike one as museum pieces today? If this is so, let us then turn to the question of the existence of abstract entities. One answer, that of Frege, may (in part) be stated thus:

I count as objects... for example numbers, truth values,

and the courses of values to be introduced below" Frege (1) p.35.

These latter are analogous to classes. All these objects (Gegenstand) are:

...neither spatial nor physical... but non-sensible and objective" Frege (2) #26.

By 'objective' Frege means 'non-subjective'. Classes, numbers, truth values are then non-sensible entities which, in contradistinction to everyday objects, are neither in space nor in time, further these do not depend upon us for their existence. Neither physical nor mental, they help constitute what Frege, in another passage, calls 'The Third Realm'.

Now let us contrast this with the position of Russell. Russell states the development of his own beliefs thus:

I shared with Frege a belief in the Platonic reality of numbers, which in my imagination, peopled the timeless realm of Being. It was a comforting faith which I later abandoned with regret... In the end, it seemed to result that none of the raw materials of the world has smooth logical

properties, but that whatever appears to have such properties is constructed artificially in order to have them... (Technical advances in mathematical logic) have swept away many apparent entities such as classes, points, and instants... How far it is possible to go in the direction of nominalism remains, to my mind, an unsolved question"

Russell (1) X, XI, XIV.

Russell, accordingly, denies Frege's claim that numbers and classes have (or must have?) an objective existence. And moreover he grounds this denial in terms of a logic to which Frege, himself, had so enormously contributed. Goodman and Quine take an even stronger position:

We do not believe in abstract entities. No one supposes that abstract entities -- classes, relations, properties, etc.-- exist in space-time; but we mean more than this.

We renounce them altogether" Goodman (2) p. 105

One would think that this strong espousal of a nominalist position would represent the end of the line-- and the end of the issue. But this is not the case. For despite these assertions, as respected a mathematical logician as Gödel continues to reaffirm a realist position. In criticizing the intuitionists (who as Quine suggests represent a modern parallel to the conventionalists of medieval philosophy), Gödel states his own belief that there is an objective reality, which mathematicians discover:

Only someone who (like the intuitionist) denies that the concepts and axioms of classical set theory have any meaning (or any well defined meaning) could be satisfied with such a

solution [which would permit the formulation of alternative set theories] not someone who believes them to describe some well-determined reality" Kneebone (1) p. 306, italics mine.

The grounds, i.e., the technical advances in mathematical logic, that led Russell to abandon his faith in the Platonic reality of numbers, that permitted Quine and Goodman to propose a language in which even the names of classes were not to appear, have left Gödel's beliefs unaffected. We might also mention in this respect the basically "platonic" treatment of logic in Church's "Introduction to Mathematical Logic" and "The Need for Abstract Entities in Semantic Analysis". But commentators on Church, although not Church himself, might view this merely as a notational convenience, without ontological commitment.

Further an issue of this kind permits disagreement not only in relation to content, but also in respect to the significance of any prima facie statements which assert such claims. Carnap, for instance, writes:

[The Vienna circle rejected]...the case for both the thesis of the reality of universals (abstract entities, in our present terminology) and the nominalist thesis that they are not real" Carnap (1) Section 3.

And finally -- in this discussion of dissent -- even the choice of method employed in defending and criticizing such statements, is open to dispute. Quine, in a discussion with Geach, says:

I think this question [On what there is] like any question concerning the broadest features of our scientific schematism, has to be settled pragmatically.



I gather from Mr. Geach's concluding remarks that he thinks it is to be settled dialectically"

Quine here refers to the earlier remarks of Geach:

What you must do, as Aquinas pointed out, is to pick holes in (your opponent's) arguments" Quine-Geach (1) p. 159.

To summarize. We have noted the assertion by Frege that classes exist; Russell's statement that the belief in the existence of such abstract entities is unfounded, i.e., that there is no evidence for Frege's claim; Goodman and Quine's renunciation of any use of classes, i.e., that there is no need to consider any abstract entities as components in our logical structures; then Gödel's counter assertion that the axioms of class theory do indeed describe some well-determined reality; and Church's argument for the introduction of abstract entities into a semantic system. We then have the positivist doctrine that any assertion, either of the existence or non-existence of classes is meaningless, and finally a difference of opinion, between Quine and Geach, about the very method of deciding ontological issues.

"Philosophy", we are told in an early commentary, "is the mother of argument" Aristotle (1) p.28 . Whether she has blushed to acknowledge this or not, it is evident that she is far from barren in this respect.

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#4. If the reader still has reservations, if for instance he suspects that the issues mentioned above are atypical, let him consider the following tangle of queries:

Does God exist? Does God not exist? Or is <sup>the truth of</sup> 'God exists'?

unknowable? Or, is 'God exists' provable? disprovable?

Is it meaningful? Or is the initial question itself

nonsensical?

One can, of course, find some philosophers who will argue for and answer yes (respectively) to any of these questions.

Or consider the disagreement, among philosophers of science (and scientists), concerning the interpretation of theories, and of the ontological status of the theoretical entities referred to within them. The electron, or the psi-function for one thinker might be merely a theoretical construct-- in Einstein's phrase "a hook upon which we hang reality". But to another these same constructs might represent fundamental elements of the universe; while to a third 'electron' and 'psi-function' might designate nothing at all, and be merely syncategorematic parts of a theoretical language.

One can still remain unimpressed and say: But these issues -- upon which you have neatly pinned the philosophers -- are there because most of the thinkers concerned have made mistakes, or the very questions at the heart of the problems are nonsensical'. But this is an interpretation of the facts. Remove this interpretation, i.e., take off the spectacles with which one habitually views this subject, and all that remains to be seen -- is disagreement. Or better yet: what one does become aware of is how broad a spectrum philosophers occupy through the range of all possible positions.

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In view of this, it would seem that if the field of philosophy in which such questions develop is concerned with genuine issues, then another answer to swell the lists is not in order. Rather what seems

to be requisite is a second-order investigation of these issues. For, faced as we are with a prima facie failure on the part of philosophy to establish any lasting answers to questions in which the term 'exist' plays a prominent role, it is natural to suspect the activity itself. If existence-statements purport to be concerned with the same universe, how can it be possible for philosophers to assert such an enormous array of prima facie incompatible ontological positions?

In other words, what I propose as necessary is not a study in philosophy, about existence-statements, but about the philosopher's use of existence-statements. In such a study our chief concern will not be with particular philosophical positions or issues, but with philosophical issues -- and philosophy itself -- as a subject matter. More specifically, this study will become a second-order investigation, which takes as object that part of philosophy which discusses existence, and whose most characteristic features are existence-statements.

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#5. Given this perspective, it will be easier to understand the preceding section, and the omissions the reader may have sensed within it. One might feel, nevertheless, that 1) the brief mention of examples and issues has not been detailed enough to show the nature of the problem, or 2) that any second-order discussion might be arid and pointless. Let us consider these objections.

1) Were this a study of particular philosophies, it would be necessary here to investigate each example thoroughly. Only then could we hope to show that the appearance of mutual incompatibility among different positions was indeed well founded, that the alleged differences

were legitimate and essential features of the different philosophies. (In particular we would have to show the self-consistency of each position and the comparability of its terms with those appearing in the statements of other positions allegedly incompatible with it. And we would also have to show that the positions as stated, as well as the initial question, were all free of overt or hidden nonsense. Only then could we say: This is really an issue worth investigating!)

But our study is not upon this level, and accordingly we have cited the above examples most briefly, dragging them out hastily, as in their night clothes. Perhaps we could just as well have said: Let  $T_1$  and  $T_2$  be two theories containing existence-statements...', employing ' $T_1$ ' and ' $T_2$ ' in this way as otherwise unspecified names. For our interest is in the generality of the incompatibility, and not in the features of a particular issue. The examples appear as mental crutches.

One might still object that the examples may still be atypical, or that each must be investigated in its own right before one puts any weight upon it. Yes. But let me answer with another image. Consider an architect who has completed the plans of a tower and delivered them to a construction company. The architect then leaves with the understanding that work is to start immediately. And the work does start forthwith, and continues uninterruptedly. The architect returns the following year. To say the least, he is amazed. For he sees hordes of men at work -- but no building. A few sticks here, some wires there, but not even the outline of the foundation. He does notice everybody is very busy putting up a wall, demolishing another, and that from time to time a giant scoop

picks up nearly everything already constructed and drops it someplace else. He notices too several places that have been fenced off and posted: Do not enter'.

The architect, in such a situation, would not start off by asking each man: Why are you doing this?', but would go to the construction company and get to the source of the difficulty... There is no architect of philosophy, and probably no one construction company. But this image nevertheless corresponds to what seems to be the case in philosophy: there is much work and little progress. The big signs mark the zones of little progress, i.e., those regions which have been discovered to be impossible. But the rest appears to be une grande melee. With this background of apparently inconclusive labors in mind, I do not consider it necessary to study any one issue in particular. For something seems to be wrong in general.

2) As for the more general question of the importance of this procedure, it seems evident that any reworking of the notion of a philosophic problem must inevitably alter both one's general notion of philosophy, and in particular one's understanding of the function of existence-statements in a conceptual scheme. But this is to anticipate

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#6. To return now. If we are to investigate existence-statements as they appear in the works of philosophers, we might study representative positions, such as those cited above, and analyze them in terms of their completeness, consistency, verifiability, etc. Were such a study to be performed, it might permit us to characterize the subject of existence "as a whole". (In using this expression, I echo the thought of Waismann,

in his essay "Language Strata", in which he proposes that one study the general characteristics of the stratum of language in which particular words and statements typically appear, and investigate a subject in this manner from without rather than in terms of its specific content.)

If such an investigation were performed, one might be able to establish general rules which hold for all objects in a particular language stratum. These would be rules to which all uses of existence-statements, say, would have to conform. These would among others be rules governing demonstration, the acceptability of evidence, and of explanations; rules at which could be used by all thinkers, however dissimilar their outlook. And in so doing, one might replace what appears to be a philosophic free-for-all, with a disciplined study.

Although I am in favor of such a goal, how could this be accomplished along such lines? On what neutral grounds could one possibly claim: This is a representative ontology' that one might analyze it on this basis? I can say that Angus Campbell is Scottish, knowing only that he is a Scotsman; but I cannot say he is a typical Scotsman, unless I also know the characteristics which all members of his nation have in common. Similarly -- unless one has a pretty fair notion of what ontology is like to start with -- how could one select one or several sets of existence-statements and consider them as typical? And were we to, this would cook one's data from the very start.

It seems to me that much of the strength and weakness of Wittgenstein's theory of philosophic problems, as stated in "Philosophical Investigations", comes from his having followed an approach along these

lines. We remember that within the early numbers of this work he analyzes certain key concepts of his "Tractatus", such as that of being simple, and argues that he had been misled by language into believing that the questions which he set out to answer were meaningful questions. A few analyses of this kind suggest the generalization that (all) philosophic problems have a similar aetiology in a misuse of language. (We will investigate this matter more thoroughly within a subsequent chapter.) But despite the overwhelming influence of his work, his thesis about philosophic problems has been accepted -- in its full generality -- by very few, even amongst the philosophers closest to him. I think Quinton states this general attitude fairly when he notes that the issues which Wittgenstein set out to remove have "refused to stay dead". (Quinton (1) p.543.)

If Wittgenstein's theory stated in its full generality fails to convince most philosophers, I suggest that at least one ground for this misfire can be found in the fact that most philosophers -- both before and after Wittgenstein -- are not clear about just what is a typical philosophic problem. And I for one then would shy away from any frontal attack along the lines proposed earlier, in which one would take (so-called) representative ontologies for study.

Nor, to take another tack, could one rely exclusively upon the sanction of ordinary usage. For although we do talk about the existence of life, of hope, of problems, of corporations, of revolutionary tendencies, and even of the Dodo, to apply the logic underlying these usages to questions concerning the existence of numbers, theoretical entities in nuclear physics, or to non-euclidean spaces, classes, instances of

time, and the like, demands an extraordinary measure of confidence both in ordinary language and the reliability of an extrapolatory procedure based upon it. Further an analysis of this kind would tend to be conducted from within, in terms of the "logic" of the language-games in which existence-statements are used -- and not in terms of the properties of this logic.

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#7. But, as an alternative approach, might not some question about ontological discussions in general permit us, as it were by assays and bias, to find the matter out? Certainly the most conspicuous feature of ontology is the disagreement which it breeds. Admittedly, in a field such as philosophy in which everything (or nearly everything) can be held open to doubt, it offers scant comfort to consider that there are philosophic problems such as those we have noted, and that they are particularly tenacious. And yet if we look at philosophy as an object, it is specifically the presence of issues such as these -- ones which philosophic analysis can at best suppress but seldom eliminate -- which strikes us as an inescapable feature of philosophy. This has become so commonplace, we overlook all too readily how anomalous it is. Were the same to occur in any other intellectual discipline, it would be a scandal.

As we have noted, those issues which deal with existence are particularly conspicuous in this respect. And, as this author has become painfully aware, any common ground of agreement within the tangle of its intertwining problems, seems as unobtainable as the prospect of an enduring peace in this sorry world. The question: What is?, or its modern



analogues, may indeed be the paradigm of philosophic perplexity.

Einstein has remarked that it is through questioning the commonplace, through demanding of the familiar to explain itself, that thought advances. Faced as we are with the enormous difficulty of finding some bedrock level in any study of existence it would be wise for us not to ignore this characteristic recurrence of issues concerning it. For this latter feature might indeed provide a clue to rid us of our perplexity. At the very least few philosophers would doubt this type of evidence.

Or, to put it positively -- if the peculiar irresolvability of certain philosophic issues, and in particular the development of mutually incompatible positions, seems to be a feature generally associated with these problems, might this not indicate an intrinsic connection between 'philosophic issue' and 'irresolvable'? In view of this, we can very well ask: How can one explain the appearance of prima facie incompatible ontological positions?

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And let us note that a study of this kind has two evident virtues. It starts with what may be the one statement to which all, or nearly all, philosophers would concur: namely that they do disagree and that this disagreement certainly concerns expressions using and mentioning 'exist', 'existence', and similar words. And secondly a study of this kind -- and upon this level -- can consider representative answers to this question without distorting its findings. For here the subject is not well-trodden. As we shall see the number of significantly different explanations for the appearance of prima facie mutually in-

compatible ontological positions, is rather restricted.

We can (and shall) analyze the presuppositions of such theories, i.e., the conditions which existence-statements and the language which contains them must satisfy for these explanations to be generally applicable. In this way, posing this specific question, we do find a line to follow which pursued far enough will permit us to establish (I hope beyond cavil) certain general logical properties of existence-statements, of existence-questions, and of the systems or fragments of systems in which they are embedded.

This thesis then will be a second-order analysis of existence-statements, and the point of attack will be the query: How can one explain the appearance of apparently well-reasoned but *prima facie* mutually incompatible ontological positions?

But let us bear in mind, as noted above, that our interest lies in an investigation of the general logical properties of existence-statements, together with the systems and fragments of systems in which they appear. The initial question, concerning incompatible ontologies, serves as the opening wedge.

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#8. Conspicuous within the above question is the key expression 'mutually incompatible ontological positions'. Before proceeding to the thesis proper, it would be well to devote some sections to a preliminary clarification of the meaning of this expression.

Two statements are incompatible if both cannot be true at the same time. For instance 'This stone is painted black' and 'This stone

is painted a color which is not black' are incompatible. If the former is true the latter cannot be true, and the converse. At the same time, it is also possible that neither of these statements is true: the stone may not be painted at all. We can define incompatibility as follows:

Where 'p' and 'q' are statements,

'p' and 'q' are incompatible = DEF the class containing only

'p' and 'q' contains at most one true statement.

(For those who have a predilection for the terminology of traditional logic, let us note that incompatible statements are like contraries in that both cannot be true at the same time, but both can be false. However 'incompatible' and 'contrary' are not strictly synonymous if 'contrary' is considered applicable only to universally quantified statements. The use of 'incompatible' is not restricted thus. For example, 'All x are F' and 'There is an x which is not -F' are not contraries, according to the Aristotelean account, but are nevertheless incompatible in a non-empty universe.)

We also employ the expression 'mutually incompatible'. By this we mean a conjunction of statements (which forms one position) is incompatible with a conjunction of statements (which forms another).

For instance, the positions of Democritus, and Parmenides as Raven interprets the latter, are mutually incompatible. It is impossible for the world to be composed of an exclusively material stuff, as they both claim, and for the world at the same time to be composed of many units, as Democritus asserts, and of only one unit, as Parmenides claims.

At the same time it is possible that both positions are false: matter may have no monopoly upon the constitution of the universe.

#9. I trust that the above definition and examples are clear.

It would be well at this stage to discuss a few related terms. Where 'p' and 'q' are any two meaningful statements, we shall say that 'p' and 'q' are mutually contradictory when it is impossible for both of them to be true at the same time, or for both of them to be false. For instance (providing the terms are used in the same way) Frege's assertion that numbers exist, and the nominalist denial of this: 'It is not the case that numbers exist', are mutually contradictory. For if Frege is correct, the nominalist thesis is false, and the converse.

On the other hand, two positions may be expressed in terms of a language which makes them appear to be incompatible or mutually contradictory, when in actual fact a more careful analysis shows these positions to be consistent one with another. We shall call any two such positions 'vacuously rival'. And as a linguistic convenience we shall employ 'rival' as a generic term for 'vacuously rival', 'incompatible', etc., and 'mutually contradictory'. Similarly we shall use 'incompatible' as a generic term for all but 'vacuously rival'.

#10. This is not the place to give specific technical meanings to other terms, such as 'ontology', 'existence-claims', etc. which we have used, and will use. But to avoid possible confusion, let me say that I use 'ontology' to refer to a philosophic position which describes the universe -- generally in the most embracing manner -- in terms of its

constituents, their general characteristics, and their interrelationships. I assume that the above rough delineation of the subject of ontology indicates enough to avoid gross failures in communication. It may include too much, but we can exclude these when the time comes. We can also include amongst ontological issues questions of the form: What do we mean by 'exist', or 'existence', or 'existent'? etc., when these queries are related to a clarification of the terms which one might use in the expression of an ontology.

It will be shown that the form of any ontological position can be expressed in a language which contains only 'exist' amongst extra-logical expressions. And we shall in time introduce a definitional schema also of 'exist'. But as we have suggested above, not all sentences containing 'exist' are used to establish an ontology. It will be the task of this section to weed out the undesirables.

Consider for instance:

- (1) 'Exist' has five letters.
- (2) 'Exist' rhymes with 'desist'.

The above two expressions are of little or no concern in a study of existence. For although we might be interested in that which all appearances of 'exist' and cognate terms in other languages have in common, this is obviously not the number of letters they contain, nor their sound patterns. Thus we can rule out from consideration as existence-statements, within this thesis, any such appearances of 'exist', i.e., where 'exist' (or 'existence', etc.) is mentioned in respect to its morphological or phonemic properties.

We can in a similar fashion exclude from consideration state-

ments such as:

- (3) 'Exist' is a verb.
- (4) 'Existence' is a noun.

which refer to gross syntactic features of the term they mention.

For, despite their grammatical differences, the logical structure of 'I believe that numbers exist' and 'I believe in the existence of numbers' is similar or identical. So that whether 'exist' is used as a verb, or 'existence' as a substantive is unimportant for our purposes.

We will in time be interested in some statements of the type:

- (5) 'Exist' means .....

But for the present let us pass these by until we select just those uses of 'exist', 'existence', etc. which do concern us. The apposite defining phrases will apply only to these.

Exclusions of the above kind are each in their own way evident enough. But let us now consider the following:

- (6) Living creatures do not exist on Mars.
- (7) Madame Curie discovered the existence of the element, radium.
- (8) Hope for a reprieve no longer exists.
- (9) No proof exists for Fermat's last theorem.
- (10) The Dodo does not exist.
- (11) The universal class exists.
- (12) Numbers exist.

Certainly some of these must be included among the existence-statements which concern us. But which and why?

As a preliminary exercise, let us attempt to rewrite the above in such a manner that 'exist', or a morphemic variant of 'exist' (such

as 'existence') no longer appears in the transformed expression. We can rephrase many of the above along the following lines:

(6) There are no living creatures on Mars.

(or) Mars is not inhabited by living creatures.

(or) Mars has no living creatures.

The third form avoids even the minimal ontological commitment of 'is' and 'are' above. I propose that these transformations of "Living creatures do not exist on Mars" convey all and only all the information contained in the original. Similarly (7) can be rewritten so that the transformations:

(7) Madame Curie discovered that there is an element, radium.

(or) Madame Curie discovered the element, radium.

are nearly or totally equi-informative with (7). There may, perhaps, be a shade of difference. In writing 'discovered the existence of radium' we may wish to stress the discovery of not just one more element, but of a new kind of element. (As if Madame Curie enlarged our knowledge of the universe in some fundamental way.) We will return to this in discussing the proposition that numbers exist.

We may in a similar way rephrase (8) and (9). But what about (10) and its Dodo? If we mean by (10) that there are no longer any birds which are Dodos, the way there are no longer any long skirts, we accomplish our purpose thus:

(10) There are no dodos any more.

(or) The earth no longer has dodos.

If, on the other hand, we mean that the class of Dodo's has no present members, we can say:

(10) The class Dodo is empty now.

(or) The species Dodo has the property: Extinct.

Again, we lose nothing in eliminating 'exist'. But what about (11)? When we say 'The universal class exists' is this on a par with the Dodo? Or does (11) introduce subtle distinctions of its own? This is hardly the place to tackle the problem of mathematical existence (although we do return to this in Part Three). But in a preliminary way we can observe that for any mathematical entity to exist, in the mathematical sense of 'exist', it is only necessary that it satisfy certain conditions of membership or elementhood. And these, we know, vary according to the system under discussion. And further someone can very well say -- shifting from one sense of 'exist' to another -- that he has proved that a universal class exists, in terms of a particular set of axioms, but that classes do not exist. Thus the minimal interpretation of (11) can be rephrased, say, along the following lines:

(11) The universal class has at least one member.

And according to one sense of 'exist', i.e., 'a class exists if it is non-empty', this is all we need say concerning the "existence" of the universal class.

Something, of course, may be left out in the above transformation. In such a case the intended sense of 'exist' is not merely the mathematical one, but is similar to that embodied in propositions such as 'Classes exist', 'Numbers exist', 'God exists'. To see this let us attempt to transform 'Numbers exist' as above. The result:

(12) Numbers are.

is disappointing. For in this case, unlike the earlier examples, 'are' cannot be readily eliminated. We cannot for instance say 'Numbers have...' or 'Numbers have the property that...'



and make much sense, the way we talked about Mars having no inhabitants. For what do numbers have in the above except the property of existing? We can of course pontificate and say that numbers have the property of being a constituent of the universe, or simply:

(12) Numbers are constituents of the universe.

But this again says nothing more or less than that they exist.

Let us stop here and note that the expressions containing 'exist' or 'existence', etc. which concern us (unlike those about the existence of life on Mars, or of the Dodo, or of hope, etc.) are such that 'exist' or a term roughly synonymous with it, appears and is used in such a manner that it or a synonym is irreplaceable within the expression. Let us call this an 'essential occurrence of 'exist''.

Thus the existence-statements which will concern us in this thesis are those in which the intended use of 'exist' is in an essential occurrence. This stipulation excludes not only sentences such as 'The Dodo does not exist', but also 'Exist' has five letters and is a verb'. (For in this latter case 'Exist' is mentioned and not used.) But let us note that the above formulation does not provide a mechanical procedure for determining whether or not an expression containing 'exist' is an existence-statement. For it also refers to the intended use. And only knowledge of the intention, as in the example of the statement about the existence of radium or of the universal class, can determine this.

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#11. As a final note on terminology: although the contexts may vary, I generally use 'existence-claims', 'existence-assertions', 'existence-ascriptions', etc. as stylistic variants for 'existence-

statements'. There is, however, in 'existence-ascriptions', this finer sense. By to 'ascribe existence to a', I mean 'to conjoin 'exist', together with the name of some entity or class of entities, in a statement of the form '... exist(s)'. I might have also chosen to employ 'predicate existence of a', in this way. But I have purposely avoided this latter expression because the weight of philosophic history has borne so heavily upon this poor term, 'predicate', I am not certain if all sense has not been flattened out long ago. Further, we shall find it convenient to employ 'predicate' as a generic term for property, relations, etc.; and 'predicate-term' similarly for 'property-term' and 'relation-term'. But our use of 'predicate', in this way, is only a linguistic expedient: we intend to pour no fresh ontological commitments into this old bottle.

## CHAPTER TWO

### Theories of Philosophic Problems

#### Classical - Critical - Logical Positivist

#1. Philosophy is accommodating in this: although there is much to doubt, at least there is one point about which most philosophers would agree, namely there are philosophic problems and a group of these, which can be considered fundamental, are peculiarly recalcitrant to lasting solution. And certainly discussions concerning existence are not the least amongst these. So characteristic is this irresolvability, that the otherwise singular presence in philosophy of apparently well-reasoned but mutually incompatible solutions comes to be accepted as commonplace.

We consider this a clue worth investigating. For if philosophic issues generally display these peculiar characteristics, is it not reasonable to suspect one common cause? Such a feature might of course lie in the character of the particular philosophic subjects which one discusses. But in view of the diversity of subject matter it is more reasonable to suspect that the source of these differences lies someplace either in the language, methods, attitudes, or presuppositions which enter into the formulation or putative solution of any philosophic problem. And it is clear that if there were such a common feature, or set of features, then failure to account for this would distort any detailed analysis of specific issues. To focus uniquely on the characteristics of the particular issue and to disregard the larger context would be as absurd as trying to study the structure of a snowflake from inside a hot oven.

I find no grounds to indicate that this assumption of a common aetiology is impossible. (On the contrary much in the sequel will show it to be most plausible.) We are then free to introduce some such proposition as a hypothesis, and to investigate its consequence. More specifically, let us assume that there is a feature (or a set of features) common to all or most of the perennial problems of philosophy; and whatever form this factor takes, given sufficient time its presence is sufficient to account (at least in part) for the appearance throughout philosophy of apparently well-reasoned but mutually incompatible positions... It follows, according to this hypothesis, before we can be clear about existence or the uses of 'exist', we must try to ferret out this presumed general feature (or features).

One might object: Your question, Why are there philosophic problems? is itself philosophic. And whatever solution you propose may be a contention-breeding as any you have illustrated above. So where do you get off this merry-go-round?

I am not unaware of this difficulty. One has every right to consider the presence of philosophic issues itself a philosophic problem. And thus any statement about the former may also be viewed as a statement in one of the latter. In other words, a statement about philosophic problems must also apply to itself as a statement in a philosophic problem. (This of course is not the only type of statement which applies to itself. Any theory about all theories is also self-applicable.) It will be a virtue of any such theory, if it provides a place for the appearance of controversy concerning itself.

of the present study

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#2. So much by way of introduction. Let us now, as a first step in our study, look at what other philosophers have said concerning the presence of philosophic issues. Since our intention is to discover some general factor responsible for these, if there is such a factor, we shall not restrict ourselves at this stage merely to discussions concerning the issue of existence. Rather we shall single out representative answers to the general questions: What constitutes a recurrent philosophic issue, and why are these so peculiarly resistant to adequate solution? We shall also analyze the logical conditions which must hold if any particular explanation of the above is to be considered tenable. Still, to keep a check rein on these wide-swinging queries, we shall wherever possible illustrate our study specifically in terms of discussions of issues concerning existence.

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#3. We first consider the classical approach. By 'classical', in this sense, I refer to that attitude of mind in respect to the statements of metaphysics and their degree of warrant which is exemplified by Plato, Aristotle, Aquinas, Descartes, Leibniz, and Spinoza. This attitude is to be contrasted with that of the critical approach, particularly of Kant. In a word, the difference between philosophers who, in one way or another, view metaphysical statements as both true and discoverable by the light of reason, and those for whom such statements are, at best, postulates, or their consequences. And by 'classical approach' or 'critical approach', etc. I refer to the explanation which typical philosophers in the group will offer concerning the presence of

enduring philosophical issues.

These two approaches are, in turn, distinguishable from others which we may call 'language-oriented'. Within this rubric we include the position of logical positivists for whom metaphysical propositions are nonsensical, and that of linguistic philosophers for whom such utterances, if inconclusive, are due to a misuse of language. There are of course other approaches. But those which we have mentioned will provide sufficient grist for the mill.

We shall consider Aristotle as a typical exponent of the classical approach. (With only some modification, his general methodological beliefs are shared by Plato and the other philosophers bracketed together in this classification. And, although less documented, we assume this similarity in their attitudes also applies to their explanation for philosophic issues.)

Foremost in any discussion of Aristotle's explanation is his concept of scientific truth<sup>s</sup>. Whether these be self-evident first principles or their demonstrable consequences, the discovery of any such truth -- once it is correctly grasped -- produces an unshakeable conviction in the mind:

If a man sets out to acquire the scientific knowledge that comes through demonstration, he must...have a better knowledge of the basic truths and a firmer conviction of them than of the connexion which is being demonstrated...nothing must be more certain or better known to him than these basic truths...For indeed the conviction of pure science must be unshakeable' (POST AN) 1-2 72a<sup>37ff</sup> [We abbreviate

## Aristotle's "Posterior Analytics", (POST AN).]

We assume this means that the axioms of any science -- using 'axiom' in a contemporary sense -- together with their logical consequences, are both true and of the highest warrant. By this latter I mean that no conceivable experience -- at least no conceivable experience in the world as it is -- could possibly alter the belief in their certainty. Once grasped in this way, it is indubitably clear that these propositions cannot possibly be otherwise. (For additional quotations concerning this and the following, see section 5 , Chapter Five.)

The first principles of logic and their consequences, although applicable to particular sciences, are not contained within these sciences. They provide that in terms of which one reasons. But with the possible exception of logical truths it seems that the dichotomy of self-evident first principles or their derivable consequences, is considered to exhaust the class of scientific truths. For apparently Aristotle in no place considers that there may be extra-logical statements which are necessarily true but in principle neither provable nor discoverable. Thus all such scientific statements are true, of highest certainty, and are either self-evident first principles or provable. And each particular science is the body of statements containing the axioms specific to that science, together with all their consequences.

Judging by the same negative evidence, each such science is in principle complete. (I am using 'complete' here in the sense in which a theory is said to be 'complete' if it contains no undecidable propositions.) For if it were not complete, it would contain unprovable truths. Further, since the principle of contradiction applies to all

entities, and all statements about them, all statements within each science must be mutually consistent. For if this were not the case, two contradictory statements might describe the same object. And this would be impossible, by hypothesis. Each science is then self-consistent, and (in principle) all the statements of each science form a complete deductive theory, whose premises are self-evident truths.

It might be objected that I am ill-advised in applying contemporary concepts, e.g. that of completeness, to Aristotelean logic. Unless this is intended as a slur on Aristotle, an objection of this kind could only mean that one cannot apply these terms to his logic. But if this is so, then there must be truly alternative logics, since these terms are essential in any description of formal systems as we know them. Thus, unless the objector is ready to show that there are genuinely alternative logics, I cannot see the force of any such objection.

To continue. Among the sciences, is the science of existence: And it will belong to this [first philosophy] to consider being qua being -- both what it is and the attributes which belong to it qua being" (META) E-1 1026a 31 . [We abbreviate "Metaphysics", (META).]

Further, as far as the objects of any particular science are concerned:

...We assume also the fact of their existence" (POST AN)

I-1076a 33.

Accordingly propositions describing or ascribing existence are statements, and as such are true or false. Under the strong conditions noted above, it is obviously impossible for any two mutually incompatible statements, concerning existence or anything else, to appear within any one science. For



if two such rival claims are made, i.e., if an issue develops, then the advocacy of one or both of these positions must be in error. Some errors may be due to ambiguity. As Aristotle observes 'Being', i.e., 'esti' can be used in many ways. (META) E-2 1026a 33ff. But philosophic issues continue even after the senses of a word are sifted out. For instance the sharp conflict between Aristotle and the Academy, concerning the existence of Platonic Forms, was based upon more than a confusion in words.

Aristotle must then explain why this occurs. To do this he introduces the distinction between the familiar and the intelligible. Our natural tendency, he observes, is to consider that which is familiar and close to us as true, and to reject that which we find strange, however intelligible it may be in its own right. If we apply this observation to philosophy, we can say that it is our reliance upon ill-considered opinions, or upon bad reasoning, which leads one to assert as true propositions which are incompatible with scientific truths. From a logical point of view, this is a purely prima facie incompatibility. The relationship of truths to empty claims is like that, we might say, of men to straw men. Presumably -- given sufficient time -- the mistake can be pointed out, and the correct answer will be accepted by all. The presence of philosophic issues, at least recurrent ones, is then due to human error: errors in reasoning, in the use of language, in understanding, in the grasping of the first principles, in the improper clarification of underlying issues, etc. As with Descartes, all that is knowable is illuminable, but someplace, within the outfields of the mind, a fumble can be made.

By way of illustration, observe how Aristotle in the following refers to the whole truth, its being there like a door to be hit, and

the difficulty which we may have in gaining knowledge of specific truths, because of human weakness:

Truth seems to be like the proverbial door, which no one can fail to hit, in this respect it [the investigation of truth] must be easy, but the fact that we can have a whole truth and not the particular part we aim at shows the difficulty of it. Perhaps, too, as difficulties are of two kinds, the cause of the present difficulty is not in the facts but in us. For as the eyes of bats are to the blaze of day, so is the reason in our soul to the things which are by nature most evident of all" Aristotle (META) alpha 993b. 5 ff.

#4. I have called this the 'classical approach' inasmuch as I suggest that this is the representative attitude of typical classical metaphysicians. Although few contemporary philosophers in the English-speaking world would seriously consider the contents of any such classical system, I have not introduced this approach in order to joust at windmills. For even if one rejects the strongest presupposition of the classical approach, i.e., the deductive completeness of each discipline, does not any philosopher who argues to a categorical conclusion, or who justifies a statement, employ at least informally a fragment of a deductive theory? I mean by this, does he not introduce certain premises -- whatever their nature -- and show that his conclusion follows logically from these? And if, on the basis of this argument, he insists on the truth of his conclusion, does this not commit him to maintain that his premises are true? Perhaps not necessarily true, nor necessarily necessarily true, but true nevertheless.

And if further he maintains, as modest philosophers generally do, that his is the solution, are not his premises then expected to be of the highest warrant? And if further he attacks another philosopher who disagrees with him (attacks him verbally I mean, not in the manner of the French Assembly, with swords) does he not assume that the assertion of a rival position on the part of his opponent is due to error? Thus does not thought make classicists of us all? Does not the classical approach or some weakened form of it provide the intellectual bed rock upon which most philosophic arguments are based?

Before criticizing Aristotle, let us note that his conditions are not completely unrealistic. Some bodies of knowledge do form complete deductive systems. E.g. the theory of Abelian (i.e. commutative) groups is complete. So are certain theories of elementary geometry. So for that matter is the elementary algebra of real numbers. That is to say, all of these form demonstrably consistent, complete, deductive theories. It is interesting to note also, if Tarski's analysis of what he calls 'the classical notion of truth' is relevant, that on the basis of the corresponding definition of 'truth' it can be shown that all true statements in many types of formal systems constitute a consistent, complete, deductive theory. But, as we know, following Gödel, many theories of sufficient complexity are demonstrably incomplete. Thus one of Aristotle's pre-suppositions is not generally satisfiable.

Further (excluding definitions from consideration) it is customary today to doubt the timeless self-evidence of nearly any extra-logical proposition. And this suspicion may be more than fashion. For although we are to a great extent weighed down by philosophic history, this surfeit

has its uses. We can see how most (if not all) of those propositions which some past age considered to be undeniably true, have been deflated by a subsequent age. Thus the belief that philosophic truths are of the highest warrant, and either self-evident or provable seems to offend the facts. And if this is so, any general explanation for the continued appearance of philosophic issues, based upon the above must be inadequate.

Further, the logical form of Aristotle's explanation for the continued presence of philosophic issues, makes it nearly a tautology -- and as such uninteresting. To explain this last remark, let us observe that according to the classical approach -- baldly stated --  $y$  can be a philosophic issue only if the correct solution to the question concerning  $y$  is not known, or it is known but at the same time others have not heard about this, or have not been convinced...Now, if the issue continues, there must be some philosophic cross-talk, so let us exclude the possibility that other philosophers have not heard about it. The thesis now becomes, and I will introduce logical punctuation to make this clearer:

$y$  is an enduring philosophic issue  $\iff$  (the correct solution to  $y$  is unknown  $\vee$  it is known and all thinkers to whom it is known have not been convinced).

If I have stated this thesis fairly, it is obvious that it can be shown to be false only under one set of conditions. Namely when at the same time there is an enduring philosophic issue,  $y$ , the correct solution to  $y$  is known, and all who know the solution have been convinced! There is no other way to directly falsify this thesis as it stands. But what sort of

refuting conditions are these? If thinkers are to some extent reasonable, how can one expect them to know the correct solution, be convinced, and at the same time still maintain the issue? This seems particularly incredible when we remember how unshakeable is the conviction of truth associated with first principles and their necessary consequences. And yet these are the only conditions under which the above expression can be directly falsified. And by a similar argument it can be shown that it is equally difficult to disprove the negation of this thesis. If so, if this thesis can be shown to be wrong only under such highly unrealistic conditions, then it is as I remarked earlier nearly a tautology. Or perhaps I should say, it is nearly undisprovable.

We have then three counts already to mark against the classical approach. The first is its over-strong assumption concerning the theoretical completeness of all sciences -- a completeness which if realizable would guarantee the absence of any intrinsically undecidable propositions. But this is a completeness which cannot be a general property of all theories. Secondly it seems that the conditions for falsifying the classical approach are so improbable, this thesis becomes nearly incapable of disproof. Lastly, and equally dubitable is the assumption that its first principles are self-evident and of the highest warrant.

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#5. For a theory to be non-falsifiable is one thing, but to be tenable is another. If we cannot judge its truth or falsity, we still can ask: How correct, i.e., how applicable the above may be as an explanation? If we look now at the record of philosophy, philosophers have been investigating issues, for instance questions concerning existence,

for a considerable length of time: about two thousand five hundred or so years. And yet with the exception of positions which are manifestly self-inconsistent, few ontologies have been shown to be irredeemably false; and fewer (if any) true. The issues which they attempt to solve, remain stubbornly there in one form or another. For, although they may change their color and their context, older problems, e.g. the ontological status of universals, the adequacy of a uniquely materialistic explanation, the analysis of predication, the meaning of 'existence', etc. reappear afresh in the morning mail. Thus, a fundamental notion of the classical approach -- namely that if a philosophic issue is correctly solved, the issue will in time disappear -- is either incorrect, or few if any issues have been correctly solved.

But perhaps this latter is the case, the method which the classical approach demands has never been correctly, or sufficiently, applied. (And this is a fair defense: Plato in his less sanguine moments, seems to suggest that even a dialectician is not up to the task of dialectics.) But if this is so, the value of the classical explanation for the continuance of philosophic issues becomes a function of the faith one holds in it. It is to be applied not to what is actually accomplished, but to what is hoped for. Alas when one has gone this far, it seems equally plausible to question the plausibility of the explanation. For -- given sufficient time -- we consider men sufficiently rational to at least stumble upon the truth, if there is a truth. And if this is so, the above way out for the classical approach is effectively barred. It seems then that the classical approach, however likely it may seem, explains very little, unless, of course, philosophic issues are intrinsically incapable

of being solved by philosophers.

To sum up, if a field of philosophic inquiry cannot be expressed in terms of a deductive theory, or even in a fragment of one, or if this theory is incomplete, then some of its truths (if we may use this term) are not provable. As we have seen there is no reason to expect that most theories of sufficient complexity are complete. Or, if such a theory is not consistent, then all of its provable theorems are not true. (This latter point we shall discuss in further detail in respect to the critical approach.) Or, if the premises of a theory are not all self-evident, or all undeniably true then its conclusions -- if unconditional -- however valid they may be, cannot be of the highest warrant. For we could, in such a case, conceive of a system containing premises incompatible with the first.

In view of this we may well doubt whether the classical approach is applicable to any important philosophic issue. I think it is evident that if we abandon any of its presuppositions, the assumptions of deductive completeness, self-evidentness, consistency, we must abandon the approach. For if a theory is incomplete, then an issue may very easily develop concerning the truth or falsity of a proposition which is undecidable within it. Similarly if all premises are not self-evident, or undeniable to a rational man, the possibility of rival positions is built into the very foundations of the study. And lastly, if one does not assume that all true statements do form a consistent whole, then the possibility of such an inconsistency developing in the statements one makes, is sufficient to explain the appearance of any issue, concerning anything.

But we must investigate whether these doubts are well-founded.

This we shall do in Chapters 6-9. For the present though we would be well-advised to cast about for another explanation.

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#6. Fundamental to the classical approach are the natural enough presuppositions that there is a unique answer to the questions which philosophers ask and that, with the exception of first principles, all those answers which are bathed in the light of truth are provable. Kant, as we know, challenges the generality of these assumptions, and in so doing suggests another and more compelling explanation for the enduring presence of some philosophic problems. We of course refer to his discussion of the four antinomies, in which he writes:

Here is the most singular phenomenon of human reason...an unexpected conflict which never can be removed in the common dogmatic way; because the thesis (e.g. that the world has a beginning in time and space) as well as the antithesis, can be shown (to be true) by equally clear, evident, and irresistible proofs" Kant (I) 52a.

Kant's analysis of this singular phenomenon falls into two parts.

i) Some questions which "dogmatic" metaphysicians ask, contain self-contradictory concepts. For instance, the query: Does the world have a beginning in time? presupposes that time can exist in itself. But time, Kant argues, is in itself only a mode of representation. Thus:

It is palpably contradictory to say, that a mere mode of representation exists without our representation"  
 Kant (I) 52c.



(Similarly, another self-contradictory concept, in this case that of objective appearances, is present in the query which leads to the second antinomy: Does the world consist of simple elements?) Both of these antinomies develop because the questions are posed in such a way that concepts contained within them are self-contradictory. Any time such a concept is applied we can expect to find contradictory assertions. For if, e.g. I unwittingly employ a self-contradictory concept, say that of a round-square, I can be guided by this concept and with apparent legitimacy introduce a statement of the form 'x is round' in one argument and 'x is square' in another. From which, given the platitude that for all x, x is round if and only if it is not-square, a contradiction develops.

ii) Contradictions can also appear in a second way. Here we refer to the discussion of the third and fourth antinomies in which Kant shows that the proposition 'There is freedom' and 'There is some necessary being' together with their respective negations are all provable. His explanation of this follows:

The incompatibility of these propositions [i.e. 'There is a necessary being', 'There is no necessary being'] rests entirely upon the mistake of extending what is valid merely of appearances to things in themselves and in generally confusing both in one concept." Kant (I) 53.

Kant here is referring to the concept of Cause, which when it is applied to the phenomenal world, i.e., to experience, is different from the concept of Cause applicable to the world of things in themselves. The antinomy develops when that concept, applicable to one system, is illegitimately applied to the other. Or more generally, we can say that concepts

(or elements within a family of concepts) have each a limited range of significance. Any application of specific concepts to elements outside their range is inappropriate. In this latter case, it is not the questions which introduce the contradiction into the discussion but the careless use of otherwise legitimate concepts.

Thus what I have called the 'critical approach', in contrast to the classical, maintains that there are some questions, which philosophers habitually ask, for which a solution is not forthcoming, and that any attempt to prove the correctness of a putative solution in the normal manner is illusory. One might object that Kant's demonstration of the antinomies proves only that careless reasoning is the mother of contention; that the arguments, if carefully stated, could be shown to be invalid, or self-inconsistent, irrespective of any appeal to the distinctions which Kant introduces. But this would miss the larger point. For Kant's innovation, in this respect, is his insistence that there are questions unanswerable in the classical sense. These are unanswerable either because of the conceptual inappropriateness of the initial question, or of the covert ambiguities contained within them. And this observation is certainly broader based than the particular system in terms of which it is expressed. For instance, in the following debate between F.C. Copleston and Bertrand Russell, consider Russell's use of a similar insight:

COPLESTON: I can't see how you can rule out the legitimacy of asking the question how the total, or anything at all comes to be there. Why something rather than nothing, that is the question?... [If] it could be shown that Kant's view

of the matter is correct, the question would be illegitimate, I agree; but -- I don't suppose you are a Kantian."

RUSSELL: I can illustrate what seems to be your fallacy [in asking that the universe have a cause]. Every man who exists has a mother, and it seems to me your argument is that therefore the human race must have a mother, but obviously the human race hasn't a mother -- that's a different logical sphere" Russell (2) p. 479.

The concept of cause, applicable to individuals, is not necessarily applicable to the totality of individuals. Thus the use of what I have called the 'critical approach' is not limited to strict Kantians.

But it is important, from our point of view, that we note that this approach -- as stated by Kant -- does not embody a general theory of philosophical problems. His theory purports to explain how some prima facie legitimate philosophic problems are in fact nonsense, and how some answers to other queries are conceptually inappropriate. It does not assert that all attempts to answer philosophic issues are illusory, but only some. (For if all philosophic issues were illusory, no philosophic position would be significant. And this conclusion would overstep the canons of the critical position.)

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#7. It is of course possible that one might establish a disjunction of different approaches and claim that the cause of any recalcitrant philosophic issue can be described in terms of some approach included within the disjunction. Thus the expression 'recalcitrant philosophic issue' would like 'game' be applicable to a whole range of entities with

only a loose family resemblance one to another and no one common characteristic. But this offends against simplicity and -- except as a last resort -- we should avoid this. For our purpose in studying the various approaches is to find some feature, or features, which will provide a starting point for the study of existence-statements. Intellectual economy suggests the fewer starting points, the better. If we must have a disjunction of approaches, let us find the disjunction which contains the fewest.

Thus it would be apposite, from our point of view, if we were to consider some non-classical theory of philosophic problems, which like the classical approach purports to be of general scope. For if it were truly general it would, in one way or another, also cover the issues discussed by the critical approach. We shall accordingly not consider the critical approach further. But this is not a criticism of its aptness, but a recognition of its self-imposed limitations.

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#8. There are at least two non-classical approaches which claim to be applicable to all philosophic issues. The first is that of logical positivism. As we know, the positivist argues that the usual propositions of philosophy (if synthetic) seem to be neither verifiable, nor confirmable, nor testable, etc. in terms of any conceivable experiment. And, with very few exceptions, I suppose the record of philosophic history can be shown to bear this out. But given this as a premise, and some variety of the principle of verification, the positivist can then prove his contention that all apparently informative philosophic propositions -- at least those concerning metaphysics and ethics -- are meaningless. For if one accepts

a principle that 'p' is meaningful only if 'p' is verifiable, or confirmable, etc., then by the above if 'p' is a philosophic proposition, then 'p' is meaningless. The proposition, 'p', is a mere pseudo-statement. Similarly the question which 'p' purports to answer is a pseudo-question.

But for those of us who wish to separate the epistemic from the alethic, there is an evident distinction to be made between "p' is provable" and "p' is true". And since the relevant property of statements is to be true or false, the unverifiability of 'p' need be no blemish upon its statement-hood.

Still, if the positivist argument is not conclusive, all other things being equal, it might still provide a possible approach. However, I do not think that all other things are equal. We are, for instance, well aware of how difficult it has been for the positivists to express the verification principle, or its latter day variants, in a logically acceptable manner which is sufficiently general for their purpose.

I think this difficulty lies in the nature of the beast, that any consistent, general statement of the position is impossible, or self-refuting. It is not my task here to enter into this discussion. I wish merely to point out my reasons for not considering the positivist approach an adequate one. I argue thus. Whatever form the principle of verification, etc. takes, if it is a statement, it is either analytic or synthetic in some sense of these terms as employed by the positivists. (And I think the feasibility of a distinction of this kind must be assumed by any straight-line positivist. For otherwise he must then consider the propositions of mathematics, even the theory of transfinite numbers, to be confirmable in experience, if meaningful.) I am willing to admit that a

statement of the principles of verification, etc. might be said to be true, analytically true -- in respect to a certain body of statements which may be called 'scientific'. But if such a principle is applicable to all propositions, I cannot see how it could be considered analytic under such conditions. For certainly it is not in the meaning of the term 'significant philosophic proposition' that it be verifiable or confirmable in experience. On the other hand, if the statement of the principle is synthetic it must be applicable to all propositions. (For otherwise it would not serve its intended purpose of distinguishing between scientific propositions as cognitively significant and philosophic utterances as nonsensical.) If it is synthetic, then it is either self-applicable or it is not. Let us assume that it is. But then the statement of the principle must itself be verifiable, or confirmable, in respect to all propositions, and not merely to the restricted set of statements in the language of science.

But how could this be done, unless we already knew in some certain and unambiguous manner -- independent of this principle -- just those propositions which were meaningful? Alas, if this were the case, the principle would be unnecessary, even pointless. And if we had no independent method of determining those statements which were meaningful, the principle itself (if it purported to be meaningful, i.e., confirmable or verifiable) could never be stated in full generality. For it could then only be confirmed in respect to those statements which were known to be meaningful.

If, on the other hand, the statement of this principle is not self-reflexive, then it cannot apply to all propositions, and as such is

inadequate. For under such conditions, how can one be certain that there are not other significant and equally unconfirmable propositions? Even if one were to introduce an additional provision, that the statement of this principle was meaningful although unconfirmable, what would prevent one from also tacking on a second, or a third, or a n'th exception? In such a way one might then include all the statements, say, of Aristotle's "Metaphysics" as cognitively significant and the positivist would then have to countenance a discussion of the unmoved mover within the language of science. Certainly one could not argue that the verification, etc. principle was the sole exception to itself. For by the above line of reasoning, any statement claiming this would run the same open-ended gamut of objections as the statement of the principle itself.

One might try to argue that such a principle is neither true nor false, but a canon, or a rule covering the ascription of 'meaningful' to 'synthetic proposition'. But, as noted above, I cannot see that there is a general relation of analyticity between statements about meaningful propositions and statements about confirmable or verifiable ones. As such, the principle if it is to be formulated as a canon, might also be formulated in some other manner. I mean there might be alternative canons for the ascription of 'meaningful'. As such one could not show that the principle is correct because it represents a unique possibility. Rather one would be forced to argue that the principle is correct or warranted inasmuch as it most fully satisfies certain criteria in terms of which we judge such principles; i.e., it is a good principle. And this might provide a feasible line of defense. But when one has reached this stage, one is evidently deep, deep in philosophy. So how could the

principle be defended in this way? You cannot declare an area Out of Bounds -- e.g. that 'good' is not a cognitively significant term -- when you are right in the middle of it. It is like painting 'Stay Off' on the floor and then being forced to walk upon the sign to get out.

Someone pondering upon this might reflect that the peculiar property of the principle of verification, and its progeny, is that although not statements themselves, they make other statements possible. (E.g. if we accept the principle, then the statement: This 'p' is meaningless, because unconfirmable' is true.) For what the principle does accomplish is, as it were, to introduce a new mental set or sanction an attitude. Once this is set, it is then possible to ascribe 'meaningful' to other propositions in terms of it. It is, in its way, similar to the standard meter bar which permits us to make statements about other bars that they are one meter long. (See Wittgenstein (INV) - 50)

But if the above analysis were accepted, might one not be forced to include in the same manner a whole class of philosophical propositions of this type? Why stop at this one concerning the ascription of 'meaningful'?

It seems then, that no matter how the positivist approach is viewed, the statement of this approach becomes either redundant or entangled in just those philosophic propositions which it purports to remove. So I cannot consider this approach a consistent answer to our question.

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#9. Let us note, if we compare the classical and the positivist approach, that the latter negates one set of presuppositions of the former.





The classicist is committed to the belief that there are some metaphysical propositions which are meaningful and either provable or disprovable, as the case may be. The positivist contends that there are none which can be considered as either provable or disprovable, because all are meaningless. If the results of our subsequent analysis show that the propositions of philosophers are not provable or disprovable in the classical sense, the positivist's excursion into the field of 'meaningful' becomes unnecessary in this respect.

Let us note too that as a matter of convenience we have broadened the use of 'proposition' to include apparently well-formed meaningful utterances of any kind. These are to be distinguished from the smaller class of utterances that are, or can be considered to be true or false. We shall call these latter 'statements'. All statements, in this usage, are propositions; but not the converse. For Epimenides the Cretan to say: 'All Cretans are liars' is to utter a proposition. But it is not clear if this is a statement.

## CHAPTER THREE

### The Linguistic Approach

#1. Within this and the following chapter we consider the linguistic explanation for the appearance of philosophic problems. By the 'linguistic thesis' or 'linguistic approach', we refer specifically to the strong interpretation of the theory of philosophic problems stated in Wittgenstein's "Philosophical Investigations", i.e., -- baldly stated -- the claim that all philosophic problems are due to a misuse of language. (We also use 'linguistic approach' in a secondary sense to refer to the application of this thesis by Wittgenstein and other adherents of this view.) Since we shall refer to the above-mentioned work rather frequently, we shall abbreviate it "Investigations" or (INV), as the case may be.

The strong linguistic approach, like the classical, claims full generality. But unlike the classical theory, the presuppositions of this position -- as contrasted with its pronouncements -- are peculiarly difficult to ferret out. This may account for the length of the present discussion.

Our first task is to state this thesis. To do this we trace Wittgenstein's self-criticism of his earlier philosophic attitude and the development of the linguistic thesis out of this critical reappraisal. We then observe that this thesis is peculiarly invulnerable to effective refutation, and that its general claim does not seem to be borne out in actual philosophic practise. (We recall the same features hold true also of the classical approach.) We then proceed to the heart of the chapter and ask whether or not the approach can be grounded in more fundamental terms. We do find a weaker thesis -- that philosophic

problems may be due to a misuse of language -- can be shown to follow as a consequence of certain relatively non-tendentious assumptions one might make about language and language-use. But the strong thesis, couched in full generality and applicable to all philosophic problems, cannot be proved on this basis. We show that the assumptions required to establish the stronger thesis must be of correspondingly greater power. We epitomize these latter in the notion of what we call a 'felicitous', i.e., a fully successful, form of life. If the language of any such form of life is fully felicitous -- the way for example a game is whose rules cover all situations that develop in the course of play -- it is impossible for incompatible statements to be legitimately formed in such a language. If then some *prima facie* meaningful question appears, within this language, to which either no clear cut answer or equally plausible but incompatible replies can be given -- i.e., if a philosophic issue develops -- at least one rule of language has been misused. Thus, if we assume that certain conditions are satisfied in the language or languages which philosophers employ, the linguistic thesis follows as a logical consequence of these assumptions.

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The notion of a felicitous form of life plays a central role within any description of these assumptions. 'Form of life' is of course Wittgenstein's expression, and 'felicity' is due to Austin. However, my use of this latter term, it seems to me, is sanctioned by Wittgenstein's suggestion that language is like an engine which works. Although the combination of these two expressions is our own, the concept to which they refer is not my invention. For it can be shown that if certain conditions

associated with felicity are not satisfied in a given language, it is impossible to claim that all philosophic problems expressed within it are due to a misuse of this language. Thus this use of 'felicity' denotes a necessary condition for the assertion of the general linguistic thesis

So important is this notion of felicity, that most of Chapter Four is devoted to it. Following this, we compare the form of the classical and linguistic approaches and note that the structure of both is similar in given respects. The key concept in the former is that of provability, as felicity is for the latter. It follows from this that if existence-statements were not fully provable, in the classical sense, and if the language with which we discuss existence is not fully felicitous in the linguistic sense, then neither of these approaches in themselves are adequate as general explanations for the appearance of enduring philosophic issues. For instance, if the language under study is not felicitous, incompatible existence-statements can appear even when its rules are correctly used.

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#2. We begin now with a brief outline of Wittgenstein's theory of philosophic problems and the role of rules of language within this theory. Although it may seem a bizarre point of departure, let us start by considering the argument-form of a typical classical metaphysician. Such a thinker will generally employ both statements which refer to the data of experience, and others of a more theoretical nature. It is thus that Aquinas takes the proposition that some things are in motion and combines this with a theoretical premise, based upon the concept of motion, to argue

that an unmoved mover must exist. Aquinas (I) I.2.3. And in a similar fashion, Wittgenstein within his "Tractatus Logico-Philosophicus", combines the proposition that simple sentences which contain names (when correctly used) have sense, with theoretical premises, based e.g. upon the concepts of naming and of meaning, to conclude that logical simples -- eternal objects -- must exist.

In fact in many ways the following lines of Wittgenstein, in which -- long afterwards -- he reflects upon the attitude of mind in which his "Tractatus" was written, can be viewed as a summary of the classical attitude:

"But this is how it is" -- I say to myself over and over again. I feel as though, if only I could fix my gaze absolutely sharply on this fact, get it in focus, I must grasp the essence of the matter... "This is how things are" -- That is the kind of proposition that one repeats to oneself countless times" (INV) -113, 114.

But then he continues, to criticize the above:

One thinks that one is tracing the outline of the thing's nature over and over again, and one is merely tracing round the frame through which we look at it... A picture held us captive. And we could not get outside it, for it lay in our language and language seemed to repeat it to us inexorably" (INV) -114, 115.

If a picture holds him captive the philosopher must liberate himself from the beguilement of language. But there is no getting out of language; one must free oneself from it in terms of itself. For Wittgenstein this means that one must return to the ordinary use of the words in question:

When philosophers use a word -- "knowledge", "being", "object", "!", "proposition", "name" -- and try to grasp the essence of the thing, one must always ask oneself: Is the <sup>ever</sup> word/actually used this way in the language-game which is its original home? -- What we do [i.e., what Wittgenstein of the "Investigations" does] is to bring words back from their metaphysical to their everyday use" (INV) -116.

For example, Wittgenstein asks:

What lies behind the idea that names really signify simples? -- [He then quotes a passage from the "Theaetetus" in which Socrates says everything which exists as a fundamental element can only be named, cannot be further determined, and that in consequence it is impossible to give an account of a primary element.]

He then observes:

Both Russell's 'individuals' and my 'objects' ...were such primary elements.

But what are the simple constituent parts of which reality is composed? -- What are the simple constituent parts of a chair? -- The bits of wood of which it is made? Or the molecules, or the atoms? -- "Simple" means: not composite. And here the point is: in what sense 'composite'? It makes no sense at all to speak absolutely of the 'simple' parts of a chair! " (INV) -46, 47.

And thus he concludes it is nonsense to talk -- simpliciter -- about the simple constituent parts of reality. Further:

We use the word "composite" (and therefore the word "simple") in an enormous number of different and differently related ways...

For instance:

To the philosophical question "Is the visual image of this tree composite, and what are its component parts?" the correct answer is: "That depends on what you understand by 'composite' ". (And that is of course not an answer but a rejection of the question.)" (INV) -47.

Or consider another similar question: What are the significant elements of a sentence, the types of letters, or the letters?:

Does it matter which we say, so long as we avoid misunderstandings in any particular case?" (INV) -48.

Thus particular questions, when specified, are meaningful and can be answered. But the philosophical question for Wittgenstein is unanswerable precisely because it has no sense:

Our investigation is therefore (not about things but) a grammatical one. Such an investigation sheds light on our problems by clearing misunderstandings away. Misunderstandings concerning the use of words, caused, among other things, by certain analogies between the forms of expression in different regions of language...The confusions which occupy us arise when language is like an engine idling, not when it is doing work" (INV) -90, 132.

Philosophic problems develop when we have misused the forms of our language. This adds a specious depth to the whole procedure:

The problems arising through a misinterpretation of our forms of language have the character of depth. They are deep disquietudes; their roots are as deep as the forms of our language. -- Let us ask ourselves: Why do we feel a grammatical joke to be deep? (And that is what the depth of philosophy is.)" (INV) -111.

This observation prepares the ground for the removal of philosophy. If we can make clear the inner workings of our language in such a manner that the misuse becomes evident, why then we rid ourselves of this disquietude. The questions which initially trouble us, are seen to be devoid of sense:

[Philosophical problems are solved] by looking into the workings of our language, and that in such a way as to make us recognize those workings: in despite of an urge to misunderstand them. The problems are solved, not by giving new information, but by arranging what we have always known. Philosophy is a battle against the bewitchment of our intelligence by means of language...The results of philosophy are the uncovering of one or another pieces of plain nonsense and of bumps that the understanding has got by running its head against the limits of language. These bumps make us see the value of this discovery...For the clarity that we are aiming at is indeed complete clarity. But this simply means that the philosophical should completely disappear" (INV) -109, 133, 119.

Thus for the later Wittgenstein, in contrast to the classical philosopher, to philosophize now means that one is to turn one's back upon the perplexing questions. Instead the philosopher is to investigate the misuse of



language -- the plain nonsense -- out of which the issue has arisen. But there is a curious parallel between the two approaches even here. Aristotle, in explaining the appearance of enduring philosophic problems, introduces the distinction between the familiar-to-us and the intelligible. Wittgenstein manoeuvres in the same vein. It is the surface of language which misleads us, the inner working of language is on the side of the angels. Let us rehearse these differences in respect to language:

Language, on its surface, presents us with analogies which lead one astray (INV) -90.

In the best of cases the forms of ordinary language are often like the narrow winding streets of an old city (INV) -18.

At the worst they entangle us in our own rules (INV) -125

It is "a labyrinth" (INV) -203.

On the other hand:

Once we become aware of the way language functions in its everyday role, once we study the rules of its working, we develop a perspicuous understanding which fends off and removes such entanglements (See "Investigations" 122, 125, 130-131).

In such a case we need no longer say, 1) as is characteristic of one caught in a philosophic problem, 2) "I don't know my way about" (INV) -123.

Through a study of these rules, the philosopher is ready and prepared to apply them whenever perplexities about the conduct of language arise. He assembles "reminders" for a particular purpose. (INV) -128.

The philosopher is like a referee in that his task is not to play the game, but knowing its rules, to use them in the appropriate situations.

If correctly done, there is nothing further to explain. For:

If I have exhausted the justification [for my following a rule] I have reached bedrock, and my spade is turned. Then I am inclined to say: "This is simply what I do." (INV) -217.

It might be well to assemble additional phrases in respect to this latter point. They form as it were a litany for rules, and show the fundamental importance of this notion of rules to the linguistic approach:

When I obey a rule, I do not choose, I obey the rule blindly" (INV) -219.

We are not on tenterhooks about what it tells us next, but it always tells us the same, and we do what it tells us" (INV) -223.

The rule provides the court of last appeal:

"The line [i.e., the rule] intimates which way I am to go" is only a paraphrase of: it is my last arbiter for the way I am to go" (INV) -230.

('Letzte Instanz' as employed in the German original means 'court of last appeal')

And finally:

But surely you can see...?" That is just the characteristic expression of someone who is under the compulsion of a rule" (INV) -231.

If one is aware of the rules, one is free of past philosophic disquietude. Guided by the rules "one sees." And were perfect clarity of this sort to be

achieved, "the philosophical" would completely disappear.

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#3. The linguistic approach, then, like the classical, purports to establish a general explanation for the presence of philosophical issues. How else can we interpret Wittgenstein's claim that were perfect clarity to be achieved, there would be no problems? Or, in other words, if there is no misuse of language, there cannot be any lasting philosophic problems.

Granted that the approach purports to apply to all philosophic problems. But how well does it apply? Curiously, just as in the case of the classical approach, this thesis is peculiarly invulnerable to disproof. For what conditions would make it false? If I have stated this approach correctly, it can be falsified in only two ways. 1) One can show that the statement of the position is inconsistent, either with itself, or with some other statements independently known to be true. Or 2) one can show that rules of language have not been broken and at the same time some lasting philosophic problem is present.

The question of inconsistency will occupy us in a following chapter. But at the onset, we can look most dimly upon the project of clearly proving the loosely knit statements of the "Investigations" to be either consistent or inconsistent. However this may be, let us investigate now the second method of disproof. To invalidate the linguistic thesis along such lines we would have to introduce some important counter-instance in which i: some linguistic form, z, is employed in conformity with all rules applicable to z, and ii: at the same time a very live philosophic issue, concerning the subject of z, is an enduring part of the philosophic landscape.

But here is the crucial point. Assume that such an instance is introduced, and assume, too, that z (together with all the other sentences and questions concerning the subject) appear to be flawless pieces of language. Even then, the advocate of the linguistic approach can still claim that some rule must have been broken. And -- in view of the enormous number and variety of rules applicable to any linguistic act -- who is to say him nay?

The situation here (the difficulty of demonstrating that all the rules have been complied with) is the reverse of that confronting a logician who wishes to prove that a given formula is not a theorem in a logical system. For the logician's rules of proof are set up to demonstrate that a given proposition is true, not that it is false. On the other hand, the linguistic philosopher can easily point out if a rule has been broken. But unless one could enumerate all the rules applicable to a given expression, neither he nor his opponent could ever fully demonstrate that all the rules had been complied with.

It follows that in any but an artificial situation, as e.g. in a formal language, one could never fully establish that an apparent counter-example to the linguistic thesis was a genuinely refuting instance. Thus the approach could never be conclusively shown to be false in its application to issues expressed in natural language. (And it is these which concern most philosophers.) It will be important in the sequel to remember this: that the linguistic approach is not readily disprovable. We have seen the same is true of the classical approach.

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#4. So, as with the classical approach, one cannot easily disprove

the position. Still we can inquire to what extent it does provide an acceptable explanation for the appearance of incompatible ontologies. We can also ask, and will: Can the claims of the linguistic thesis be justified on theoretical grounds? -- Is this thesis a provable consequence of some more general assumptions? An answer to this latter query is of particular importance in that it will bring out the presuppositions of this position and it is these foundations which interest us. We show indeed that they are remarkably close knit.

Let us consider, briefly, the applicability of the linguistic approach. If it is applicable, then we would expect some evidence for it in the number of philosophic issues which have been successfully removed from the intellectual scene. (The proof of the therapy lies in its dissolutions.) But alas this does not seem to be the case. For when it comes down to brass tacks, philosophic problems are not disappearing. On the contrary, have they not proliferated and the types of philosophers with them? We certainly have philosophers today who still pursue the old questions, albeit with a greater awareness of the possible nonsense in the language-pile. Then there are philosophers in the linguistic tradition. Thirdly, thinkers who argue with these latter concerning the appropriate analysis of a suspected misuse of language. Then there are philosophers concerned with the notion of Rules and of other keyconcepts employed in linguistic analyses, etc. No, we are far from perfectly clear. If the range of present activity is a fair index, philosophy still torments.

For instance, consider how philosophers of mathematics still disagree about the ontological status of numbers, of classes, and of

mathematical truths. And how philosophers of science are still at loggerheads about the existence of theoretical entities, and the status of laws. And similarly for other philosophers, the older questions -- are there meanings? facts? propositions? is there a God?, etc. -- are still queries which have not lost their sting. (It is curious how the fly loves the bottle.) Questions which have occupied the minds of philosophers for many years now, although seen in a new light, seem to resist linguistic dissolution as stubbornly as the classless state refuses to wither. As Quinton remarks: The problems [Wittgenstein] aimed to dissolve have obdurately refused to stay dead" Quinton (1) p. 543.

Admittedly the linguistic approach has been applied much less than its classical predecessor. (We have, after all, little more than one generation of linguistic philosophers to consider.) And we might try to argue on this basis that no full and correct analysis has been achieved. But is this a tenable defense? Philosophers before this have criticized the foundations of their predecessors, and shown the positions they attacked to be truly houses of cards. Berkeley's criticism of Locke's notion of abstract ideas, and Hume's criticism of his contemporaries' view of causality come readily to mind. It would indeed be a devastating criticism of Wittgenstein's approach <sup>if</sup> it were shown applicable only to his "Tractatus".

And yet as outstanding a philosopher as Wittgenstein did not stake undefended claims. His analyses in the "Investigations" are there to vindicate the correctness of his approach, if it is correct, and the fruitfulness of his method, if it is successful.

But it is such an enormous leap from the demonstration of

plain or covert nonsense here and there, to the generalization that all philosophic problems are the result of such a misuse. For the steps along the way to this generalization as stated in the "Investigations" are not clear. The thesis, as we have noted, is not universally vindicated in its results. Then is it not plausible to suspect that the first word on the signpost : All philosophic problems are the result of a misuse of language' is one word too many?

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#5. Perhaps we have misunderstood the purpose of Wittgenstein's remarks in the "Investigations". Perhaps these are to be read as recommendations for the use of the term 'philosophic problem' and not as statements which can be said to be true or false. They certainly must be at least this former if we are to take at face value the doctrine that the task of philosophy is to uncover the misuse of language responsible for a philosophic problem and thereby to dissolve it.

But if the above propositions are intended to be more than mere linguistic conventions, then Wittgenstein must show their applicability to all or nearly all accepted uses of the term in question. For if not, what has been accomplished? So again the question poses itself: How can one justify the claims of the linguistic thesis in their full generality?

They are certainly not self-evident. Well then, might they be introduced as an inductive generalization? But hardly this! For the discussion of specimen philosophic problems contained within the "Investigations" is too limited for this purpose. Although the dissolution-analyses which it does contain can suggest a way, they are insufficient to warrant the claim that all philosophic issues are due to a misuse of language.

Can this thesis then be argued for in some other manner? In asking this question we may well be departing from the position of Wittgenstein. For if language can be only described, not explained (as Wittgenstein contends in (INV) -109) I suppose arguing for a new use of 'philosophic problem' would be more than describing its use. But if this is so, I should still not feel too troubled about this departure. For our present intent is to analyze the linguistic approach, to seek out its presuppositions, and this does not mean we must follow its own ground rules in so doing. Tennis, for instance, is in the class of games which could not be played outside of a gravitational field. But such a statement about tennis could not be proved in terms of the rules of tennis.

Can we then justify all or some of the linguistic claims? If we do look closer at certain characteristics of language, -- as opposed to describing its characteristics -- we find that this thesis can to some extent be justified in terms of language. Specifically, I should like to show 1): A weaker claim, one which relates philosophic problems to a misuse of language, can indeed be proven in terms of more fundamental premises. 2): These premises are in themselves far from tendentious and I dare say few thinkers within our present tradition would strongly disagree with them. 3): But no stronger thesis can be justified if we include only grounds of this type, i.e., ones which are at least prima facie generally acceptable. 4): The general thesis, that all philosophic problems are specifically due to a misuse of language, can also be argued for. But if this is to be done, one must first introduce quite strong premises. (These also concern the characteristics of the language one employs -- and an analysis of these latter, in respect to 'existence', will occupy us



throughout much of Part III of this thesis.)

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#6. So much in the way of generalities. But before we turn to an investigation of the weaker thesis and the possible grounds upon which it can be built let me please make this point. This is not to be read as a labor in Wittgensteinian scholarship. It is more in the order of a logical language-game, whose purpose is to uncover the presuppositions of the strong linguistic approach that we may test them. So first we set ourselves an easy task, to analyze certain conceptual foundations upon which a weaker linguistic thesis can be established. Then, when this is mastered, we proceed to a study of the stronger thesis. (Also, we do resort to formal argument at some times in both of these analyses. Symbolism is introduced here, as in mathematics, because the subject matter is somewhat complex, and the argument would be awkward if confined to the expressions of natural language.)

We take two premises to ground the weak thesis. We prove in terms of them that in all philosophic issues either there is some part of language that is defective or the rules of this language have been misused. This is like, but not identical with, the strong thesis that all philosophic problems are due to such a misuse. The difference will prove instructive.

For our first premise let us turn to (INV) -98:

...it seems clear that where there is sense there must be perfect order. -- So there must be perfect order even in the vaguest sentence."

Perhaps one might object, in respect to this observation, that certain details are incorrect, or exaggerated. For instance, we can say: I got the

gist of his remarks, even if they were unclear here and there'. And this would seem to run counter to the above. But I think that when we do catch the gist of someone's remarks, we do understand the sense of a simplified version of these remarks, and this we can say does have a perfect sense. At least the sense is as perfect as it need be for the situation. (For instance, as Wittgenstein observes, (INV) -88, when I say: Stand about there', the hearer knows what I mean.) And in many cases to make this sentence more exact would be to run counter to the purpose for which it is used.

With this in mind, I think we can, in general, accept the above observation and proceed to state a first premise based upon it. In so doing, since the generality of the variables concerned is important in the following argument, we shall adopt the convention that all variables mentioned are considered to be universally quantified unless specifically restricted by 'some', or a similar expression. (For instance in the following, in which both 'y' and 'z' appear, neither are so restricted)

The observation cited above is concerned with the sense of expressions and with their order. Thus:

Where z is used as an expression concerning y,

(1) If z has a sense, then the order of z, about y, is perfect.

Our second premise concerns philosophic problems. We have noted i: for Wittgenstein a philosophic problem is analogous to a situation in which one does not know one's way around, or one in which there is conceptual confusion. We can consider this confusion to be present either in the thoughts of one thinker, all thinkers, or within the conceptual scheme itself in which the problem develops. Viewed within these broad contexts,

I think the linkage of 'philosophic problem' and 'confusion' becomes acceptable. Let us also consider the platitude ii: where there is confusion in our thoughts, or in our concepts, there is also no perfect order in these thoughts or concepts. In the interests of simplicity let us assume, iii: in some timeless present -- there are thoughts about anything. We now combine these three notes on thoughts and confusion to form the following premise:

Where  $v$  is any philosophic problem concerning any  $y$

- (2) There are some thoughts,  $x$ , about  $y$ , for which there is no perfect order; and there are such thoughts for any  $y$ .

Three comments on the above are in order. 1) Were the first conjunct not the case (i.e., if the order of thought were perfect) there could be no confusion. 2) It is evident that the thoughts about  $y$  envisaged in (2) need be only those thoughts which are connected with the philosophic issue. Other thoughts about the subject may be of untarnished clarity. For instance there are philosophic problems concerning the subject of numbers and of mathematical entities in general. As such we might be ready to acknowledge that some thoughts about numbers are confused. But this does not mean that all thoughts concerning them lack perfect order. For example it is not clear to what extent the transfinite numbers can be said to exist. But this does not make the statement 'Two is a finite number' unclear. In short, there is good reason to introduce 'some' in 'some thoughts',  $x$  about  $y$ ', above. 3) Admittedly the matter in the second conjunct -- that there are thoughts about anything -- may be too strong. But it is a characteristic of this argument to link language and thoughts. Either there

is no restriction upon these thoughts, or the argument becomes applicable only to those subjects about which one does think. The difference does not seem very important to me, and so I have expressed (2) in such a way as to avoid this conditionalization. If one finds this arbitrary, one may delete the second conjunct. The argument then applies only to those subjects that are thought about, i.e., 'if y is a subject thought about, then...'. But it seems to me that the discussion of philosophic problems that no one has thoughts about is a trifle academic.

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#7. We now prove the weaker thesis on the basis of (1-2). Although the fully quantified proof might daunt some readers, the schema of this proof is brief enough, and we shall discuss it in terms of this latter. To do this, we introduce the sentence-letters 'p', 'q', etc. in the following as abbreviations for the open sentences, or propositional functions, which appear in the above premises. Thus:

'p'	stands for	'z is used as a linguistic form concerning y'
'q'	" "	'z has a sense'
'r'	" "	'the order of x, about y, is perfect'
'r*'	" "	'the order of z, about y, is perfect'
's'	" "	'v is a philosophic problem concerning y'
't'	" "	'x is a thought about y'

We now rewrite premises (1-2) in terms of the above. Variables contained within the open-sentences will be mentioned at the right. These that are existentially quantified will follow those that are not restricted and will be so indicated. Let us assume without proof that 'r' and 'r\*' can be interchanged. (This will be shown in the detailed proof). We can then write all

the above premises in terms of 'p', 'q', 'r', 's', and 't' as follows.

Premise (1) can be rephrased as the conditional:

If z is used as a linguistic form concerning y and if z has a sense then the order of z about y is perfect.

or

(1)  $p \supset q \supset r$  y, z are variables

Premise(2) states:

If v is any philosophic problem concerning any y then there are some thoughts, x, about y for which there is no perfect order; and there are such thoughts for any y.

This can be symbolized:  $s \supset t \supset \sim r$ , but it is convenient to employ the following logically equivalent form:

(2)  $s \supset t \supset \sim r$  v, y, x are variables;  
x is existentially quantified.

Although, strictly speaking it is not 'r' which is negated but 'perfect order', when 'r' is considered as quantified, the result is the same.

See detailed proof in the following section.

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To premises (1) and (2) we now add as an hypothesis that v is a philosophic problem concerning y:

(3) s (provisional assumption)  
v, y are both free in 's'.

From these it follows:

(4) t 2.  
 (5)  $s \supset t \supset \sim r$  2, 2.  
 (6)  $\sim r$  3, 4, 5.

(7)  $\sim p \vee \sim q$  1, 6.

(8)  $\sim p \vee (p \cdot \sim q)$  7 truth-functionally implies 8.

Eliminating the provisional assumption, 's', we conclude:

(9)  $s \supset \sim p \vee (p \cdot \sim q)$  3-8. z is existentially quantified.

This is due to the interchange of 'z' and the existentially quantified 'x', in 'r\*' and 'r'. (See section 8.)

In the following discussion it will be convenient to commute the disjunction so that 'p' can become the second term:

(10)  $s \supset (p \cdot \sim q) \vee \sim p$  (9: z is existentially quantified)

The conclusion can be expressed thus: In all philosophic problems, either some linguistic form concerning the subject of this issue has no sense, or there are no linguistic forms concerning this subject'. To say 'there are no linguistic forms...' means that language is defective in this respect. If we now introduce the platitude that using senseless expressions breaks the rules of the language, we can conclude:

In all philosophic problems there is either some misuse of language or the language is defective.

It would appear at first sight that the latter provision stands for an empty possibility. For wherever there is a philosophic issue -- or any sort of intellectual issue -- concerning some subject, must we not have a language and expressions with which to talk about the subject? BUT is this always the case? Might not there be difficulties and confusions precisely because our language is defective in this way? For instance, One might consider the example of Galileo in this respect. According to Hanson:

Galileo's error [in his early theory of motion] consists in this: the principle he adopts as evident and natural -- that the velocities of a freely falling body are proportional to the distances traversed [and not related to the time of descent] -- could never lead to the law of falling bodies as he formulated it. It leads to an entirely different law, expressible only as an exponential function. Galileo could never have managed such a formulation with the mathematics at his disposal" Hanson (1) p. 38.

Galileo strove for many years to complete his theory of motion along the above lines. On the other hand:

The time factor could receive due weight in this geometrical representation....But it is understandable why this factor should so long have been overlooked: thinking new thoughts in a conceptual framework not designed to express them requires unprecedented physical insights. In the history of physics few could sense the importance of things not yet expressible in current idioms. The task of the few has been to find means of saying what is for others unsayable" Hanson (1) p. 46.

With the benefit of hindsight we can realize that the language and idioms

available to Galileo were defective in some important aspect? The perplexity concerning motion -- this confusion in natural philosophy -- did not develop because a rule of language was misused. Rather there was no clear rule to be either used or misused. And this I propose is the sort of situation envisaged in the second term of the above disjunction. Thus it may be far from empty -- and ontological issues may arise where language fails.

Now can we remove this disjunct by adding some additional premise, say, that there can be no thought unless there is some linguistic form present in which to express this thought, or even to enable it to be thought. Although such<sup>a</sup> premise would contradict the above example, perhaps it might be argued for some other way. By its nature it could not refer to all, but only to some linguistic forms. It might claim e.g. that for any given thought some expression must be available within the language, it could not claim that all expressions potentially in the language had to be available. But then the restrictions imposed upon the use of variables in quantification theory would effectively prevent us from combining this premise with ' $\sim p$ ' in the above to remove the disjunct. No, one cannot derive -- at least with these premises -- the strong thesis that all philosophic problems are due to a misuse of language.

Further the above premises are too weak in another sense. For we could also derive from them the proposition that in all philosophic problems some thoughts are present which have no sense. And this might be used to establish a generalized statement of the critical approach. Thus the premises lack specificity.



As for the disjunction, this can be removed, but at a price. The statement ' $\sim p \vee p \cdot q$ ' implies ' $\sim p \vee q$ '. Since we cannot show in terms of premises (1-2) that either ' $p$ ' or ' $q$ ' is true, nor that either of them is self-contradictory, it is then possible that either of them is true. So we can make the weaker claim that in all philosophic problems, it is possible that language has been misused. But possibilities, like assumptions, are plentiful. Without the stronger demonstration that this possibility is the case, we have not travelled very far.

Let us return to the proof itself. We have taken two pre-mises, choosing them in such a manner that most philosophers would grant them at least a prima facie acceptance and credibility. With these we have been able to prove a weakened form of the linguistic theory. How weak this form is depends upon the strength of the exceptions contained in ' $\sim p$ '. At the very best it is not fully general: we cannot say that the premises provide a sufficient condition for the assertion of the linguistic approach in all cases.

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#8. It will be the task of the subsequent sections to correct the above noted defects. Specifically one must ban the formation of the above disjunction, without a retreat into possibilities, and at the same time exclude the derivation of the critical approach. But before proceeding let us establish the full proof which we have discussed above only in its schematic form. (The explicitly quantified statements which it contains, add nothing further, to the content expressed by the open-sentence letters employed above, and the reader if he wishes may continue directly

to the next section.) Within the complete proof, the following self-evident abbreviations are used to replace the sentence-letters already specified. In this way

'p'	becomes	'LF <sub>zy</sub> '	, i.e. 'z is used as a linguistic form concerning y'
'q'	"	'SENS <sub>z</sub> '	, i.e. 'z has a sense';
'r'	"	'PO <sub>xy</sub> '	, i.e. 'The order of x, about y, is perfect';
'r*'	"	'PO <sub>zy</sub> '	, i.e. 'The order of z, about y, is perfect';
's'	"	'PP <sub>vy</sub> '	, i.e. 'v is a philosophic problem concerning y';
't'	"	'TH <sub>xy</sub> '	, i.e. 'x is a thought about y'.

We write the premises thus:

- (1)  $(y)(z)(LF_{zy} \cdot SENS_z \cdot \supset PO_{zy})$
- (2)  $(v)(y)(\exists x)(PP_{vy} \cdot TH_{xy} \cdot \supset \sim PO_{xy} ; TH_{xy})$

The proof is straightforward. Except for the shedding and adding of quantifiers, its pattern is similar to that of the schematic proof already stated. The substitutability of 'r' and 'r\*', assumed above, is justified by successive instantiations of ' $(\exists x) PO_{xy}$ ' and ' $(z) PO_{zy}$ ' to ' $PO_{xy}$ ' in lines (6) and (11). The notation '...is flagged' appearing on the right indicates a restriction imposed by existential instantiation. The plus and minus marks on the extreme left indicate the points of introduction and elimination (respectively) of a provisional assumption. The proof follows:

- +1(3)  $PP_{vy}$  (Provisional assumption)
- (4)  $(y)(\exists x)(PP_{vy} \cdot TH_{xy} \cdot \supset \sim PO_{xy} ; TH_{xy})$  2.

- (5)  $(\exists x) (PP_{vy} \cdot TH_{xy} \supset \sim PO_{xy} : TH_{xy})$  4.
- (6)  $PP_{vy} \cdot TH_{xy} \cdot \supset \sim PO_{xy} : TH_{xy}$  5. x is flagged
- (7)  $TH_{xy}$  6.
- (8)  $PP_{vy} \cdot TH_{xy} \cdot \supset \sim PO_{xy}$  6.
- (9)  $\sim PO_{xy}$  3, 7, 8.
- (10)  $(z) (LF_{zy} \cdot SENS_z \cdot \supset PO_{zy})$  1.
- (11)  $LF_{xy} \cdot SENS_x \cdot \supset PO_{xy}$  10.
- (12)  $\sim LF_{xy} \vee \sim SENS_x$  9, 11.
- (13)  $\sim LF_{xy} \vee LF_{xy} \cdot \sim SENS_x$  12 truth-functionally implies 13

We discharge the provisional assumption:

-1(14)  $PP_{vy} \supset : \sim LF_{xy} \vee LF_{xy} \cdot \sim SENS_x$  3-13.

and quantify:

(15)  $(\exists z) (PP_{vy} \supset : \sim LF_{zy} \vee LF_{zy} \cdot \sim SENS_z)$  14.

(16)  $(y) (\exists z) (PP_{vy} \supset : \sim LF_{zy} \vee LF_{zy} \cdot \sim SENS_z)$  15.

to conclude:

(17)  $(v) (y) (\exists z) (PP_{vy} \supset : \sim LF_{zy} \vee LF_{zy} \cdot \sim SENS_z)$  16.

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#9. The virtue of the above proof lies in the plausibility of its premises. However, as we have noted, these are both too weak and general. E.g. a similar line of argument might be used to ground the critical approach as well. Then let the lesson of this game we have played be clear:

let us seek out strong premises and not be concerned with their initial plausibility. Specifically, these premises must assure that no genuine alternative to the linguistic position is possible, that all philosophic problems must be linked to a misuse of language, and conversely that the absence of misuse warrants the non-existence of such problems. Further, it would seem that these conditions should be grounded in the characteristics of language and language-use and not in some vaguely defined area of intellectual confusion. Pursuant to an error-free compliance with its rules, language in some way must guarantee the impossibility of enduring issues.

If the linguistic thesis follows as a logical consequence of such premises, they then state a set of sufficient conditions for the assertion of its thesis. And if when these conditions are not satisfied, there can still be philosophic issues and these not due to a misuse of language, these premises also supply necessary conditions. Thus however plausible or implausible these premises may be, their satisfaction is presupposed in the linguistic approach.

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#10. Although we shall soon reject ~~this~~ as a premise let us first consider one which strikes us as fundamental to the linguistic approach. I refer to the tenet already mentioned that we can only think of that of which we can talk. This notion is, of course, literally speaking, so much rubbish. Einstein, for instance, has remarked that most of his best thinking is vaguely spatial, and it is only towards the very end of a problem that he is able to express his ideas in words. Or again, one tells the story of how Picasso spent rapt hours in front of several paintings of

Braque. His only comment was: 'I like the way he thinks'. But, as we have said above, we shall not be concerned with the initial plausibility of the premises we choose, but with their logical power. And, to be the devil's advocate, it is only fair to remark that philosophers as a rule are language oriented, so we would at least expect philosophic thought and philosophic confusion in general to be closely associated with language. In other words, one might claim that a necessary condition for thinking about any particular subject,  $y$ , is that there be present within the language some appropriate expressions concerning  $y$ . We will in the sequel consider English as a representative language. We can then rephrase the above, simply thus: For any subject, if  $x$  is a thought about this subject, then there is some expression,  $z$ , about it. A premise such as this has the advantage that it would automatically prevent the possibility of philosophic problems developing within a defective language.

But such a premise remains inadequate. It is debatable as a question of fact. Further it seems equally reasonable to claim that for any expression about  $y$  there is -- as least in a timeless present -- a thought about  $y$ . If so, whatever might be said about a misuse of language could probably be shown equally applicable to a misuse of thoughts. And I do not think that the linguistic approach considers itself merely the other side of the Kantian coin. Again the argument would be unable to ban the critical approach. Also, there are the technical difficulties concerning the presence of the existentially quantified component, which might again prevent the expression of a fully general conclusion.

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#11. For the present, let us note that the above discussed premise

states a necessary condition for thinking about y, i.e., that there be an expression or a linguistic form concerning y. But this, of course, is not tantamount to saying that the linguistic form, or the rule of language associated with this expression, determines the way we must think about y. And yet the assertion that language is thought-determining is an essential feature -- and perhaps the most peculiar one -- within the linguistic approach. If we are to ground the strong thesis that all philosophic problems are due to a misuse of language and at the same time exclude any other causes, we will be forced to introduce a premise about language which will justify the claim that it is thought-determining. (This is not an arbitrary stipulation upon our part. For how else can one consider that language is like a machine, i.e., that it is determinate? Or again, see "Investigations" 231.)

But here is the difficulty. It is scarcely credible to claim that one rule determines the way one must think about y. (What one rule determines the way one must drive or play tennis?) Instead, if we are to make sense of this notion of language as thought-determining, we must refer to a totality of rules in force at any time, and claim that it is this totality, or some sub-set of it, which determines the way one must think about y. And even then, we shall find it more convenient to refer to the totality of moves which these rules sanction, rather than to the rules themselves.

- - -

The totality of rules of language in force at any time determine a form of life, and thus the rules determine among others the set of linguistic activities which can be performed. We can then introduce the following definition:

By 'form of life of the language' we mean 'the totality of moves

which the rules of the language legitimize'.

Whether or not the above definition corresponds to all of Wittgenstein's uses of the term, it seems to be at least roughly equivalent to one specific use, although purposely narrower. For instance, in (INV) -2 Wittgenstein discussed a primitive language consisting of 'block', 'pillar', 'slab', and 'beam'. E.g. using this language "A calls [these words] out; - B brings the stone which he has learnt to bring at such-and-such a call." Referring to this language Wittgenstein continues:

We can also think of the whole process of using words in (2) as one of those games by means of which children learn their native language. I will call these games "language-games"... And the [learning] process of naming the stones and of repeating words after someone might also be called language-games...I shall also call the whole, consisting of language and the actions into which it is woven, the "language-game" (INV) -7.

'Language-game' can then refer to i) the whole process of using language ii) certain procedures in learning language, and iii) the process of using a language, together with the activities, like moving the stones, concomitant to the performance of a felicitous speech act. Later in (INV) -23 Wittgenstein introduces another note on the use of 'language-game', and in this passage he ties this to 'form of life':

Here the term "language-game" is meant to bring into prominence the fact that the speaking of language is part of an activity, or of a form of life" (INV) -23

We shall consider a form of life in the third sense, above, as an activity

consisting of language-use together with the actions into which this use is woven-- i.e., the totality of moves which the rules of the language legitimize. But for our present purposes the actions which will concern us are speech acts and the concomitant thoughts.

Now what do we mean by the above definition of 'form of life', and in particular what do we mean by 'legitimate moves'? Let us consider the rules of language in this respect as sanctioning moves. For instance, we are all familiar with the syntactical rules of a language. These apply to an initial set of elements, say words, and determine the well-formedness of any discrete string of lexical units in the language. In other words, the rules of syntax determine the totality of legitimate possible combinations of the initial elements, inasmuch as these combinations purport to be well-formed sentences. If we supplement the normal rules of syntax with others which govern the meaningful combination of words, this augmented set of rules then determines the class of all possible meaningful sentences. If we further supplement these rules by introducing others which apply to the logical characteristics of sentences and strings of sentences -- using 'logical' in a very broad sense -- this further augmented set of rules determines not only the legitimacy of purportedly meaningful sentences, but the "logical" correctness of any such sentence, question, or sequence of sentences. (We develop these distinctions in further detail in §IV-5 .) In this broader use of 'logic', we can consider questions as well as statements to be logical or illogical as the case may be. (See §IV-5 .)

According to this view any combination of words, etc. is like the pieces of a game occupying positions on a board. If the combination is legitimate the rules of language sanction the occupancy of this position,



and at the same <sup>time</sup> determine the class of subsequent moves. As far as language is concerned, these moves will be further statements or questions. These in turn lead to other statements and questions. The rules in this way determine the class of legitimate possible moves within the language. This is its form of life, as we shall consider it. (Alternatively, we can say that the form of life determines its corresponding language.)

Now we must show how a form of life can be thought-determining (For were this not the case, two thinkers in response to the same situation and within the same form of life could reach mutually incompatible conclusions. And were this so, one could not blame this upon a misuse of language.) First and foremost, if a form of life is felicitous (i.e., if it works, if it is successful) the rules of this form of life -- like those of any game which works -- must yield compatible results in all their applications. Let me illustrate this. If we consider the game of tennis again, it is obvious that it would be unplayable if its provisions were such that different rules could be applied to the same situation at the same time and were to yield incompatible results. (In this sense of 'incompatibility' we refer to the mutual incompatibility of the statements uttered by the referee.) Imagine the referee saying: According to Rule Five, you have won the game, according to Rule Six, you have lost. Go on with the game'. The game could not go on.

Of course we can imagine disputes (Have we not been party to them?) concerning whether or not the ball touched the line. But these concern the facts; it is not the application of the rules which is in question. If the game is felicitous -- if its rules work -- there can be no dispute concerning their use. See (INV) -240. And in any situation in which such

rules are correctly applied there cannot possibly be any irreconcilably dissident opinions. Similarly if a form of life worked in all its applications, it would be impossible -- in any given situation -- to employ correctly the rules of the corresponding language and at the same time produce mutually incompatible statements. (Remember: that at all times one is guided by the rules, one cannot be on tenter-hooks about the way to proceed.)

To avoid misunderstanding -- since this is an essential point -- let us make it clear that the rules of language cannot be expected in themselves to render, automatically, the correct answers. (In this way they are like the rules of logic which can be used to derive valid, but not necessarily sound conclusions.) For instance when the referee sees the ball as hitting the line -- when in fact it has not -- his application of the rules, although correct, need not yield the correct decision. Similarly when the rules of language are correctly applied to a false proposition, the results -- although sanctioned by the rules -- may be false.

But let us assume that the propositions in question are not false and that, for the time being, we are not troubled by any new facts, or any new observations or discoveries. (Philosophy, in Wittgenstein's view, is not concerned with these (INV) -126.). Under such conditions, the correct application of the rules of a felicitous form of life -- if ever there were such a form of life -- must always yield compatible results in any given situation. This means: when a legitimate question (i.e., one which breaks no rules of the language) is expressed in a fully felicitous form of life, if two incompatible answers to the query appear, one at least of these cannot be sanctioned by the rules of the language. It would be the same as two opposing basketball teams claiming to score different goals

at the same time. Under these conditions we can be certain, a priori, that some rule must have been broken or misused by at least one of the offending players.

We shall investigate the subject of compatibility in further detail in Chapter Four, but for the present let us review those characteristics of a felicitous form of life which we have mentioned. We assume that no expressions, to which the rules of this form of life are to be applied, are false or meaningless. We assume also that no new facts are to be introduced, i.e., that for the time under consideration a form of life (which we shall call 'w') is closed to new information. We now consider a legitimate expression of the language of w. This expression, which may be a statement or a question, is sanctioned by the rules of w, and if it is a question, it is not based upon a false or nonsensical assumption. If w is fully felicitous, no matter how the rules of w are applied to this expression to form new -- including those which govern the use of 'therefore' and 'it is possible' -- expressions, all resulting statements sanctioned by the rules of w/will be mutually compatible. Thus whenever w is a felicitous form of life, under these conditions, the conjunction of any two statements appearing within w permits a consistent interpretation. And this applies to all forms of life -- if any are felicitous -- to all linguistic forms within them, all rules of the corresponding language, and to all subjects. In other words:

For all subjects, all forms of life, all rules which determine them, and all initial expressions of the corresponding language:

- (1+) if a form of life is fully felicitous and its rules have been correctly applied, then all expressions resulting from an application of these rules are mutually compatible.

(The reader will recall we assume the form of life closed to new information for the time under discussion, and that all the initial expressions sanctioned within it are meaningful, and lastly none of these are false. Let us call any such initial expressions or their consequences 'well-sanctioned'.)

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Given these features of a felicitous form of life, we can now prove the strong linguistic thesis essentially in terms of (1+). That is to say, if a form of life is felicitous in this way, all philosophic problems expressed within its corresponding language are due -- nay, must be due -- to a misuse of this language.

To show this, we must also introduce the following additional premise:

For all subjects,  $y$ ,

(2+) if there is a philosophic problem concerning  $y$ , then there are some statements about  $y$  which are not mutually compatible.

We have already argued for the general correctness of this premise.

. . . .

#12. Having stated the premises, we now (as in the case of the earlier proof) proceed as follows. 1): We symbolize the open sentences appearing

in the premises. 2): We then establish a schematic proof in terms of these. 3): We rephrase the premises in the notation of the predicate calculus. 4): Given these, we then establish a complete proof. To avoid reduplication, we will list both the open-sentences and the corresponding predicate expressions together, as follows:

- (r<sub>1</sub>) FFL<sub>w</sub>                      w is a felicitous form of life
- (r<sub>2</sub>) CA<sub>ϕ</sub>                        ϕ, a rule governing z, is correctly applied to z
- (r<sub>3</sub>) CA<sub>ϑ</sub>                        ϑ, a rule governing z, is correctly applied to z
- (r<sub>4</sub>) I<sub>z</sub> ⊃ M<sub>z</sub>                    If z is an initial expression, z is meaningful and not-false.
- (s)    (see below)
- (t)    PP<sub>vy</sub>                        v is a philosophic problem concerning y

We complete this list with the following complex predicate/<sup>-term</sup>in which the expressions 'ϕ<sub>z</sub>' and 'ϑ<sub>z</sub>' appear. These are (respectively) the results of applying the rules ϕ and ϑ to z to yield the new expressions 'ϕ<sub>z</sub>' and 'ϑ<sub>z</sub>'.

- (s)    COMP<sub>ϕ<sub>z</sub>, ϑ<sub>z</sub></sub>                    The expressions 'ϕ<sub>z</sub>' and 'ϑ<sub>z</sub>' are mutually compatible. ('ϕ', 'ϑ', and 'z' appear as variables in this predicate.)

To establish the schematic proof, as above we shall list variables at the right. The premises are as follows:

- (1+)    r<sub>1</sub> · r<sub>2</sub> · r<sub>3</sub> · r<sub>4</sub> · ⊃ s            ϕ, ϑ, w, y, z
- For all subjects, for all forms of life, all rules which determine them, and all expressions of the

corresponding language: if a form of life is felicitous and its rules have been correctly applied, and its initial expressions are meaningful and not-false, then all the expressions resulting from an application of these rules are mutually compatible.

(2+)  $\vdash \exists \sim s$

$v, y; \phi, e, z$  are existentially quantified

For all subjects,  $y$ , and for all philosophic problems,  $v$ , if there is a philosophic problem concerning  $y$  then there are some statements,

' $\phi_z$ ' and ' $e_z$ ', which are not mutually compatible.

We make the following assumptions explicit:

(a) There is a form of life,  $w$ , and all the above rules, etc. are part of it.

(b) The form of life,  $w$ , is closed to new information for the time under discussion.

(c) All initial elements, mentioned in ' $r_4$ ', are meaningful and not-false. By 'initial' we mean any expression to which  $\phi$  and  $e$  are applicable.

Despite the ponderous apparatus, the proof itself is rather straightforward.

From premises (1+) - (2+) we proceed:

(3)  $\sim s \supset \sim r_1 \vee \sim r_2 \vee \sim r_3 \vee \sim r_4$  1+.

(4)  $\vdash \exists$ . " 2+, 3.

(5)  $\sim \vdash \forall$ . " 4.

(6)  $r_4$  (By assumption c)  $z$ , is a variable

(7)  $\sim \vdash \forall \sim r_1 \vee \sim r_2 \vee \sim r_3$  5, 6.

$$(8) \quad \sim(t.r_1) \vee (\sim r_2 \vee \sim r_3) \quad 7.$$

From which we conclude:

$$(9) \quad t.r_1 \supset (\sim r_2 \vee \sim r_3) \quad 8.$$

In words:

For all philosophic problems, all subjects, all forms of life, w:

If there is a philosophic problem in w and w is felicitous, then at least one rule of language is not correctly applied (i.e., is misused).

As stated, our conclusion is now fully general -- provided that w is felicitous. If we assume that w is felicitous we can remove this condition.

We then conclude (upon the assumption that w is felicitous):

For all philosophic problems: there are philosophic problems only if language is misused.

The logic of the word 'cause' and 'due to' is rather confusing. In one interpretation of these words 'A is due to B' can mean 'A only if B'. Thus the slogan 'All philosophic problems are due to a misuse of language' is, in this sense of 'due', a direct consequence of premises (1+) = (2+) (and the restricting assumptions a) - c). Further, if we transpose the conclusions (assuming again that w is felicitous) it follows that if there is no misuse of language, there are no philosophic problems. This would be that perfect clarity in which the philosophical would no longer exist.

. . . .

#13. Thus, at long last we have uncovered a set of fundamental pre-suppositions of the linguistic approach. For the above argument shows that the premises and assumptions as stated provide a sufficient condition

for the assertion of the linguistic approach. The backbone of the argument is contained in premise (1+). (Premise (2+) is merely an observation concerning philosophic problems.)

Of central importance to this proof -- perhaps the keystone in the edifice -- is the assumption that the form of life is felicitous. For by step (9) if this condition is not satisfied, we can conclude precious little about any rules being broken in the genesis of a philosophic problem. If the form of life were infelicitous, or infelicitous in certain important areas, the appearance of mutually incompatible statements would be fully in order. (The form of life, in such a case, would be like the actions of a disorganized theatre group which sold two tickets to each seat in a performance. Philosophic issues then would be equivalent to arguments over who had the right seat -- when both parties had correct tickets in their hand.) As Russell's paradox demonstrates, naive set theory provides another good example of such an infelicitous form of life.

But, in terms of the above assumptions and premises, if the conditions of felicity, etc. are satisfied any philosophic issue which develops will be due to -- and only to -- human error. Where  $w$  is felicitous, the only possibility of philosophic problems appearing within it, lies in the misuse of the corresponding language.

Thus, as in the case of the classical approach, a complete understanding and error-free application of the material at hand (in this case the rules of a felicitous form of life and the well-sanctioned expressions to which they are applicable) precludes the formation of mutually incompatible statements. This achieved, the philosopher can say: Stop!' to his unrest. Given this, there is nothing to do (we are told) but see:



Philosophy puts everything before us, and neither explains nor deduces anything. -- Since everything lies open to view there is nothing to explain." (INV) -126. Italics mine.

#14. We now append a full proof of the argument which we have demonstrated schematically. As in the preceding case, the detailed argument introduces no new information. The reader may, if he wishes, proceed directly to the beginning of the next chapter. We have accomplished our purpose here in demonstrating the central importance of the presupposition of felicity to the linguistic approach. It is evident, too, since there is no reference to thought or concepts in the above argument, that the critical approach is not derivable from premises (1+) - (2+).

We repeat the premises:

$$(1+) \quad (\phi)(\theta)(w)(z)(FFL_w . CA_{\phi z} . CA_{\theta z} . I_z \supset M_z : \supset COMP_{\phi z, \theta z})$$

$$(2+) \quad (\forall)(\gamma)(\exists \phi)(\exists \theta)(\exists z)(PP_{\forall \gamma} \supset \sim COMP_{\phi z, \theta z})$$

and we add the assumptions in force; particularly:

$$(3) \quad (z)(I_z \supset M_z)$$

From these we argue:

$$(4) \quad (\gamma)(\exists \phi)(\exists \theta)(\exists z)(PP_{\forall \gamma} \supset \sim COMP_{\phi z, \theta z}) \quad 2+$$

$$(5) \quad (\exists \phi)(\exists \theta)(\exists z) \quad "$$

$$(6) \quad (\exists \theta)(\exists z) \quad "$$

$$(7) \quad (\exists z) \quad "$$

$$(8) \quad PP_{\forall \gamma} \supset \sim COMP_{\phi z, \theta z} \quad 7. z \text{ is flagged}$$

$$(9) \quad (\theta)(w)(z)(FFL_w . CA_{\phi z} . CA_{\theta z} . I_z \supset M_z : \supset COMP_{\phi z, \theta z}) \quad 1+$$

- (10) (w) (z) " 9.
- (11) (z) " 10.
- (12)  $FFL_w \cdot CA_{\phi z} \cdot CA_{ez} \cdot I_z \supset M_z \supset COMP_{\phi z, ez}$  11.
- (13)  $\sim COMP_{\phi z, ez} \supset \sim (FFL_w \cdot \text{etc.} \dots \dots I_z \supset M_z)$  12.
- (14)  $PP_{vy} \supset \sim (FFL_w \cdot \text{etc.} \dots \dots I_z \supset M_z)$  8, 13.
- (15)  $\sim PP_{vy} \vee \sim FFL_w \vee \sim CA_{\phi z} \vee \sim CA_{ez} \vee \sim (I_z \supset M_z)$  14.

We now remove the last disjunct:

- (16)  $I_z \supset M_z$  3.
- (17)  $\sim PP_{vy} \vee \sim FFL_w \vee \sim CA_{\phi z} \vee \sim CA_{ez}$  15, 16.

Regrouping:

- (18)  $\sim (FFL_w \cdot PP_{vy}) \vee (\sim CA_{\phi z} \vee \sim CA_{ez})$  17.

This becomes:

- (19)  $FFL_w \cdot PP_{vy} \cdot \supset \cdot \sim CA_{\phi z} \vee \sim CA_{ez}$  18.
- (20)  $FFL_w \supset : PP_{vy} \supset \cdot \sim CA_{\phi z} \vee \sim CA_{ez}$  19.

Adding quantifiers:

- (21)  $(\exists_z)(FFL_w \supset : PP_{vy} \supset \cdot \sim CA_{\phi z} \vee \sim CA_{ez})$  20.
- (22)  $(\exists_e)(\exists_z)(FFL_w \text{ etc.} \dots \dots)$  21.
- (23)  $(\exists_\phi)(\exists_e)(\exists_z)(FFL_w \text{ etc.} \dots \dots)$  22.
- (24)  $(\forall)(\exists_\phi)(\exists_e)(\exists_z)(FFL_w \text{ etc.} \dots \dots)$  23.
- (25)  $(\forall)(\forall)(\exists_\phi)(\exists_e)(\exists_z)(FFL_w \text{ etc.} \dots \dots)$  24.

From which we conclude:

- (26)  $(w)(\forall)(\forall)(\exists_\phi)(\exists_e)(\exists_z)(FFL_w \supset : PP_{vy} \supset \cdot \sim CA_{\phi z} \vee \sim CA_{ez})$  25.

in words: For all forms of life and all subjects,  $y$ , if the form of life is felicitous then for any philosophic problem concerning any  $y$  in this form of life there is some rule or rules which have not been correctly applied to some expression, about  $y$ , appearing within it.

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An objection might be made: If the initial elements, i.e. any expressions to which the rules are applied, are all meaningful, how can nonsense-questions ever arise? And if these cannot appear, how can any philosophic problems, as envisaged in "Investigations" develop? This objection challenges the convention (c) and thus finds the third premise unacceptable. Let us grant this. The conclusion (without quantifiers) then becomes:

$$\text{FFL}_w \supset: \text{PPvy} \supset \sim \text{CA}_{ez} \vee \sim \text{CA}_{ez} \vee \text{I}_z \sim \text{M}_z$$

for line 16 cannot be established. In this way in a felicitous form of life there are philosophic problems only if some rule of language has been misused in forming new expressions from the initial stock, or some initial expressions are meaningless.

Perhaps this formulation, although more complex, is more exact. But we can build this feature into ours and still maintain the simpler conclusion of line 26. To do this we need merely specify that the initial elements are any statements one accepts as true before any fresh discovery, see (INV)-126, together with their consequences. Improperly formed questions would not be initial elements. The misuse of language would still be concerned with incorrect inferences based upon these initial elements, but error then would be due to the deformation caused by the presence of meaningless questions and other systematically misleading expressions. Either formulation achieves substantially the same result; we have opted for the former.

## CHAPTER FOUR

### Felicity

#1. In the preceding we have argued that the strong linguistic thesis can be shown to follow from other more fundamental premises. Prominent among these is the assumption that the form of life -- and by extension its corresponding language -- is felicitous. Thus 'felicity' enters into a statement of a sufficient condition for the assertion of the linguistic approach. But the statement of a sufficient condition can be false and that of which it is a condition may still be the case. To ban this possibility we must show that felicity in itself provides a necessary condition for the assertion of the linguistic approach.

It may seem obvious that it does. But without closer analysis, it would be well to distrust the obvious. This is particularly true in the present case. For we have not as yet defined 'felicity' and have conducted our investigation merely in terms of an intuitive understanding of the notion.

It will be the task of the present chapter to remove these defects in our argument; i.e., 1) to define 'felicity' and to show that the key premise, (1+), of the preceding argument follows from this definition, and 2) to show that the strong linguistic approach indeed does presuppose felicity as a necessary condition. Given these, we can show that even if 'felicitous form of life' is not explicitly mentioned within the "Investigations", it nevertheless describes a necessary condition which must be satisfied in any language under consideration if the linguistic approach is to be applicable to it. An appraisal of the adequacy of the linguistic

thesis as a general explanation for the appearance of philosophic problems depends, at least in part, on whether these conditions are satisfied by the given language. E.g., if the form of life is felicitous in regard to the use of 'existence', enduring problems concerning existence are impossible in such a form of life. If it is infelicitous, we must seek elsewhere to explain the appearance of philosophic issues concerning existence.

Our major task within this chapter then is to define 'felicity'. (And it is the process of establishing this definition that gives unity to the chapter.) We divide this discussion into the following parts. The first is concerned with the degree of acceptability which a fluent user of the language must accord to a description of his linguistic performances, if the language is to be considered felicitous. The second section discusses the degree of uniqueness such a description must satisfy. The third characteristic of the rules of a felicitous language, namely their relative completeness, is discussed in the following sections.

Subsequent sections study the type of compatibility which the rules of a form of life must display for felicity to be assured. Compatibility proves to be more complex a subject than our earlier brief treatment indicated. For, the compatibility of the rules which establish patterns of what Strawson calls 'lexicographical' entailment, cannot be patterned strictly on those of formal logic.

Given specific values of these four characteristics -- degree of acceptability, uniqueness, compatibility, and completeness -- the definition of 'felicity' follows directly. We close the chapter with a short discussion of the structure of the classical and linguistic

approaches, and of their common features.

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#2. So much by way of introduction. Now to the details. In the following we shall first be concerned with what seems to be an unexceptionable point. Namely this: whenever one acts in conformity with a rule, any such action can also be performed in some other way:

... if everything can be made out to accord with the rule,  
then it can also be made out to conflict with it" (INV) 201.

For instance, it is a rule in Britain to drive on the left, but it is physically possible to drive on the right, as in the United States -- or even in the middle as with certain old ladies. On the other hand we would not normally say it was a rule that the planets revolved around the sun. For (we believe) as things are that short of an unforeseen disaster no other motion is possible. Since 'r is a rule' is related to 'r is to be obeyed', it is senseless to talk of obeying something which could not be otherwise.

Similarly, when we consider a set of rules, any rule within this set (and by extension all the rules in the set) can, from a physical point of view, be otherwise. The characteristics of this set, inasmuch as they are specifically determined by the rules, can thus be otherwise. In respect to the physical world, the characteristics of any form of life then could also be different from what they are. (There is of course, one exception to this observation. Certain general facts of nature -- see (INV) xii -- can in some cases determine the non-existence of a form of life, i.e., one whose rules could not be satisfied. We hear little of nudist colonies amongst eskimos. But we are not interested here in discussing impossibilities.)

But then if one is to dissolve the force of a philosophic question by showing its aetiology in a misuse of language, it is obvious that one cannot claim that the rules purportedly broken are determined in some way by nature. On what grounds then? If the therapy is to be effective, the rule referred to must be inalterable in some way. Otherwise, those to whom the philosophic question still bears sense, might reply: The rule has been broken. So what?'

Now in what manner can a rule of language be said to be so fully sanctioned that a departure from it is impossible? For instance on what grounds do we accept a description of a rule as correct and binding? We might, e.g. consider rules in terms of the degree of explicit reference to these rules which language-users must establish in order to obey them. But it is clear that Wittgenstein cannot have rules of this kind in mind. Who for instance must refer explicitly to the rules for the use of 'pain', the way many people must refer to rules such as 'i' comes before 'e' except after 'c', or 'Thirty days has September..'?

Rather what is relevant here is the degree of acceptability which a person will accord to a description of his linguistic behavior. (For a language-user might very well accept a description of his speech as being in conformity with rules, of which he may have heretofore been totally ignorant.) Must such a description be accepted by some? or by nearly all fluent speakers of the language? By hypothesis the speakers of the language can dispense with the rule-description. But for the description to be sanctioned, must they all accept it as applicable? If all were to accept the description, the problem is dissolved.

What if only some were to accept? This is not an issue which can

be decided by a ballot. For if only two were to say: 'We do not accept this description of the rule' or 'We do not find it applicable' or 'There is no rule to refer to', who is to deny that within their language-game, their move is meaningful? For instance, in the course of an inconclusive debate between Ayer and Copleston, Ayer argues that he accepts the rule that non-analytic statements untestable in experience are meaningless. On the basis of this he refuses to countenance the question: 'Why is there a universe, and not nothing?' But since Copleston refuses to accept this rule, he considers: 'Why is there a universe..?' a possible philosophical question. Copleston (1) p. 730.

Wittgenstein observes that we do agree about a form of life (INV) -241. And I suppose in a general way this is indisputable. But as the above illustrates, we must all be in agreement about each possible language-game within it, if the philosophical is to cease. Any description of the "inner" working of language must be accepted then by all or nearly all qualified rational users of the language. Further, this acceptance must relate not only to the rule itself, but also to its range of acceptability. For if the warrantability or unwarrantability of its extension to novel situations, such as those purportedly introduced within a philosophic question, were not self-evident or universally accepted, there could be no ultimate sanction for the claim that the rule had been infringed.

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#3. And further, as we shall now show, the description of the rule or rules in question must be accepted as uniquely applicable. This may seem to be a strange requirement. For we generally assume if we do describe behavior in different ways, that all such descriptions, if correct,



are mutually compatible. So it would seem if two dissimilar descriptions were to appear, and both were acceptable codifications of common usage, that there could be no conflict in respect to all their applications. But this is not the case. For the point at issue is not how adequately a rule-description covers an ordinary usage, but the legitimacy of its application to novel situations. And there is a fundamental difference here.

If for example two (or more) rules apply equally well to all the common usages of a word or phrase, nothing in the description of one rule need logically entail the description of the other. It may just so happen that both fit the same set of circumstances. For instance, if two tribes lived in a primitive area and one tribe had the rule: 'Drink only fresh water', and the other: 'Drink only clear water', both rules would apply equally well to the fresh, clear water which they found. Now consider these same two tribes at the seashore. The first tribe, following its rule would drink only fresh water and slake its thirst. The second, entangled with its rules, would drink the clear ocean water and obtain an unintended mouthful of salt.

Or again, Marilyn Monroe as we know was married, at different times, both to a baseball player, Joe DIMaggio, and to a playwright, Arthur Miller. Within a monogamous culture such as ours tries to be, the expression 'my present spouse' can be used by a person as a definite description. Thus if she were to say 'a is my present spouse' and at the same time 'b is my present spouse', a and b must -- by more than lexical law -- be identical. Let us now consider the three parties in Heaven. (The weather is too hot for us to envisage any alternative position.)

Heaven would hardly be a linguistic paradise for these. For applying the rules of ordinary terrestrial usage she might very well describe Joe DiMaggio as a playwright and Arthur Miller as a brilliant outfielder, since a and b must be identical by the above rule.

Thus where two logically possible descriptions of a restricted set of usages  $u_1, u_2, u_3, \dots$ , are both acceptable, there is no warrant that they will remain compatible for the  $u_k$ -th use. Philosophy, we presume, is like Heaven in that it introduces uncommon (but not un hoped for) situations. And if we are to avoid philosophic issues due to a misuse of language, we cannot assume that alternative rules compatible in normal use retain their compatibility in these novel ones.

One could escape this conclusion by claiming that there was only one possible correct description, but this would run counter to the spirit of the "Investigations". (Is there one way of being simple?) Nor do I see how one could solve this problem by trying to claim that all descriptions of any given set of usages were logically equivalent. For how, except in a formal language, could one possibly assert this? Normal English, for instance, can be described either in terms of the traditional subject-predicate grammar, or by means of transformational grammar. (The former is said to single out surface features of the language, the latter its deep structure.) For most expressions, the appraisals of well-formedness are compatible. But if these two grammars are applied to non-standard usages, some expressions which are considered to be ill-formed -- and consequently unacceptable -- by the followers of one position, are accepted as well-formed by the advocates of the other. This is similar to the referee who cries: The point has been made, the point has not been made,

go on with the game'. Thus, although this is obviously a very strong condition, the rules of any fully felicitous form of life must be uniquely applicable. Language cannot afford the luxury of interminable jurisdictional disputes.

In view of the strength of this condition, one would probably suggest that a relativization of the degree of felicity is in order. For instance imagine a language which was felicitous in all the respects we have discussed in its ordinary use. This same language could nevertheless be infelicitous in certain out of the way, novel, philosophic uses, i.e., when the engine was idling. These latter cases would be characterized by a breakdown or a weakness or vagueness, etc. in the rules. But this relativization of felicity is of course insufficient for the strong linguistic claim. For then one could say philosophic issues were due to a weakness of language in not providing for these regions of infelicity.

However, if we consider the rules and expressions of ordinary usage to be canonical -- to be the normal use -- then any use of a rule which leads to statements incompatible with those sanctioned by ordinary usage can be considered (in an extended use of the term) to break the rules of language. Thus a generally felicitous form of life could seal off in this way the undesirable consequences of the areas of infelicity which it might contain. This, I think, may be a fundamental rationale for the appeal to ordinary usage as the final arbiter.

Thus although the entire notion of degrees of felicity is a complex one, I think in this respect we can consider a (in part) defective form of life to be sufficiently felicitous if any of the following conditions are satisfied. In the first case, there may be variant descriptions of

the rules, but the results of their application are compatible both in the normal and abnormal situations. When this is so, we can consider the different rule-descriptions to be synonymous in respect to all their applications. Such rules would place no strain upon felicity. In a second case, some of the rules may yield incompatible applications in the novel situation. Let us assume that the results of applying all but one of these rules leads to consequences incompatible with some statement(s) sanctioned by ordinary usage. In this way, all but the one rule might then be banned or interdicted in terms of their consequences. Again felicity is saved.

However this makes for a narrow island surrounded by a sea of troubles. What for instance are we to say when two rules yield results incompatible in the novel situation but not incompatible with ordinary usage? Or if all are incompatible with ordinary usage? Or if the novel situation proves so abnormal that no established rules seem to apply? Language cannot leave itself in such a muddle. A fully felicitous form of life cannot brook the appearance of these possibilities without some remedy. The answer, presumably, is "Let the public decide". But how? (We shall come to this in a moment.) But for the present, let us recapitulate the argument of this section.

We have argued, however strange it may seem, that any description of the rules of a felicitous form of life must be unique. For otherwise there is no guarantee that in an application to a novel situation, two previously compatible rules will maintain this compatibility. If this

occurs, infelicity enters. Some areas of infelicity can be sealed off by a recourse to examples of ordinary usage as canonical. This is possible when two or more genuinely incompatible rules are such that the application of all but one of these is interdicted by their consequences. At other times prima facie alternative rules might be shown to be actually synonymous in their application. But in all other cases, the decision seems to be left open. This introduces the third important feature of felicity, to which we now attend, namely the completeness or completability of the rules.

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#4. We have seen that each rule in a fully felicitous form of life must be uniquely applicable, and a description of it must be accepted as binding by nearly all fluent rational users of the language. Let us now consider these rules not individually but as a whole. The system which these rules establish must be either complete or completable. For at any time in which a correctly formed expression appears within the language there can be no doubt about the legitimacy of any moves which follow this appearance. Chess, for instance, is complete in this strong sense. Given any legitimate configuration of pieces on the board, the set of all possible subsequent moves which are sanctioned by the rules is fully determined. Again this is a very strong condition to impose upon any language, and it too can be weakened. For example, tennis remains a felicitous game even if its rules do not prescribe the maximum height above the net at which a ball may pass. But such exceptions aside, the rules of tennis are fully determinate in all important situations. Were this not the case, the game would break down. In the same way the theory of philosophic problems must claim that the rules of language are sufficiently

complete inasmuch as they apply to any significant situation which might develop within it. For were this not the case, the philosopher-referee might encounter a situation to which there could be no reminder. See (INV) - 127.

And finally this completeness, whether absolute or relativized to cover all significant situations, must apply not only to the rules at a given time but -- where rules are liable to change -- to the rules or procedures which govern this change. For if alterations or supplementation of a rule were not also rule-guided (however implicit this guidance might be), a philosopher-at-bay might always claim: 'I have infringed no rule, I have modified it according to my lights'.

An advocate of the linguistic approach might object that this would be impossible, that any modification the philosopher might make -- if it were not arbitrary -- would have to be guided by, and compatible with, the rules of his form of life. It is obvious that we must use 'rules' now in a much broader sense. These apply not only to the use of words, but to the whole context of activities, purposes, etc. for which language is used and into which it is interwoven.

Now if we consider all these purposes, values, techniques, actions, customs, etc., obviously the philosopher is guided and constrained by the form of life, in this extended sense, of which he is a part. And if we wish to consider language and these inextricably interwoven, then if he is guided by the rules of this extended form of life, he is a fortiori guided by the rules of its language.

But by the time we enlarge our view this way, the linguistic

thesis loses all its specificity. One could just as well say that the philosopher is guided by the rules of the conceptual scheme in force at a given time. And then, if inconsistent statements appear about some subject one could (taking one's pick) describe this equally well as due to a misuse of our conceptual apparatus, or to a misuse of language. But if we go this far, the linguistic approach reduces to a vapid generality: We strive to make our statements and thoughts about the world consistent. If they are not (as e.g. when philosophic issues develop) then we have made a mistake!

And further one could then apply the linguistic thesis to any problems, not merely philosophic issues. For instance if a careless scientist misreads the data of his experiments and reaches conclusions incompatible with an established scientific law, we would normally say that he did not comply with the rules governing scientific procedure. But if form-of-life and custom and language are to be interwoven, as above, we could also say that the scientist had misused language. But in such a case, why stop with the scientist? Police laws also are part of our form of life, inasmuch as they codify customs. If I drive through a red light and hit three cars, can I claim: Your Honor, I have only misused language'?

No, the linguistic thesis stakes its claim in respect to language, in the specific sense of 'language' as that which is spoken or written. As such it can point out how features specific to language, and not to the design of experiments or of traffic intersections can lead us astray. But if difficulties develop in respect to its thesis -- as we have pointed out in our discussion of the areas of infelicity within a language -- it

cannot solve this problem by shifting its ground to a new use in which language now becomes interwoven with all the concomitant activities. (It is for this reason that we have specifically restricted our interpretation of 'form of life' to encompass only linguistic acts and the concomitant thoughts.) For this voids the thesis of any specific content it may contain. For better or for worse, the linguistic thesis is married to the felicity of language. And as Wittgenstein says in (INV)-19, "to imagine a language, is to imagine a form of life". So let us continue our analysis in respect to the former. If there are, for instance, characteristics of a form of life which determine the way in which a defective language is to be supplemented, well and good. But if these are present, then they will be reflected in the language, in the way it works and develops. Thus we can look at language and say, as we have, that if the linguistic thesis is to be asserted in respect to some language, it must either be complete, or the procedures in terms of which rule-change and supplementation are established, are also part of the language.

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#5. The fourth and final condition is that of compatibility. We have claimed that any two or more rules within a felicitous form of life will be mutually compatible in all their applications. We have argued that were this not the case some legitimate applications of the rules to an appropriately formed true statement within the language would yield mutually incompatible conclusions. And this of course would be impossible within the tenets of the linguistic approach.

We have based this claim concerning compatibility on an analogy between the rules of language and of logic. But is this justified? For



there are diverse types of language-rules. To substantiate our claim, we must show how and to what extent the analogy holds. In doing this we shall be forced to add further specifications to our earlier statement of the condition of compatibility.

We now signal out various types of language-rules and show how each is used to contribute to felicity. We start with rules of sentence-formation. These, applicable to strings of words, determine which sequences are well-formed sentences of the language. Such rules would accept 'He is a bachelor', 'She is a bachelor', and reject 'He is a', 'is a', etc. These rules would also accept as sentences explicit and implicit performatives, such as 'Look out!', 'You are hereby notified'..., etc. Finally these rules would sanction propositions such as 'This is a green bang', and 'The present King of France is bald', which although absurd or impossible appear in well-formed sentences.

If we wish to exclude some of the above as statements, we must then consider a second class of rules. Let us call these 'rules of statement-formation'. These, by nature of their role, are of different kinds. Some might exclude commands. Exclusion in this case might be determined purely in respect to syntactical features of the sentences concerned. Syntactical considerations, in an extended sense of 'syntax', might also be employed to rule out lexically absurd propositions such as 'This is a green bang'. (In such a case the rules of syntax would be construed to interdict certain combinations of color + sound words, the way they now prohibit other improper combinations, as e.g. that of plural subject + singular verb in 'You smokes.')

But in many cases some reference to extra-lexical features of

the speech-act becomes imperative. For instance otherwise well-formed statement-making sentences must be excluded if the context of utterance fails to satisfy the presuppositions underlying their normal use. 'The present King of France is bald' can hardly be said to make a statement if there is no present King of France.

Whatever the techniques of exclusion employed, if the rules of statement-formation are complete, no nonsense-statements can be introduced into the language without contravening the rules. This applies both to lexically absurd and to contextually impossible propositions. In the former, no sentences containing words or expressions linked in an unsanctioned bond (as in 'green bang') can be countenanced as statements. In the latter, in which the satisfaction of existential or other conditions is presupposed, as with 'The present King of France..', such purported statements cannot be introduced unless their presuppositions are fulfilled.

The above rules apply to the formation of statements. The following provide for substitution and transformation. Among substitution rules we mention definitions. These serve either to abbreviate more complex expressions in terms of simpler ones, e.g. the way 'unmarried man' is abbreviated 'bachelor'; or to establish relations of approximate synonymy between words as between 'trousers' and 'long pants'. In either case these rules sanction substitution of one expression for another.

More important for our purpose are transformation rules. Those which I shall mention govern sentence transformation, logical entailment, and lexicographers' entailment. (For this latter see Strawson (1) p. 227. I shall call this 'lexical entailment'.)

As for the first, according to current linguistic theory, we can

consider any well-formed question to be a transformation of a corresponding core sentence. In this way (working backwards) 'What is existence?' by successive stages becomes 'Existence is what?' and then 'Existence is something'. Thus if the core sentence 'Existence is something' satisfies the rules of statement-formation, we can consider the corresponding query a statement-eliciting question. Failing this, we need not. This is a convenient device which permits us to discuss questions in terms of their corresponding sentences. We need not conduct any special discussion of questions, philosophical or otherwise.

Lastly there are the transformation rules which sanction entailment relations between statements. Some of these apply to all statements: these are the rules of logic. (I do not think it important here if we consider these to be rules in language, or to be those of another discipline applicable to language.) By 'rules of logic' I refer to those applicable to any statement, expressed in any language, inasmuch as the form of the statement is constructed in terms of (logical) words such as 'and', 'or', 'some', 'therefore' etc., or their cognates in other languages; and the rules apply only to this structure. The rules of logical entailment, are those rules of this type, which warrant the transformation of an initial statement or group of statements into another which is a valid consequence of the original.

The above process of defining 'rules of logic' in terms of 'logical words' may appear circular. But this is soon remedied. We merely need enumerate a list of words and call these 'logical words', or more exactly list a set of signs and define 'logical expression' in terms of their proper combinations. Similarly we can list a set of argument-

forms and define 'valid consequence' as the final line of any substitution instance of this form.

We shall call those rules which do sanction patterns of entailment unwarranted by the rules of logic, rules of lexical entailment. The characteristic feature of these is that they warrant, or provide inference tickets, for transformations based upon the meaning of the extra-logical words contained within the statements. E.g. from 'He is an eligible bachelor' it may follow that the unmarried male in question is attractive, or socially well-placed, or rich, or desirable in some other way as a permanent spouse. Logic would entail only that he is a bachelor and that he is eligible.

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#6. We have argued at various points that the rules of a felicitous form of life must be compatible, and that the linguistic thesis cannot be maintained in respect to a language which does not satisfy this condition. It is evident that the rules of lexical entailment and of substitution must play an important part in such a language. But what do we mean when we say that these are compatible?

The analogy between logical and lexical entailment can help us to answer this question. As far as the rules of logic are concerned, we know that 1) all valid consequences of true statements are true (in particular if 'p' is true and 'q' is true, the conjunction 'p.q.' is true), and 2) the rules of logic are considered to be totally irrevivable in respect to recalcitrant experience, or (some philosophers would say) revivable only in extremis.

In a weaker form, and only in a weaker form, the above is also

true of the patterns of lexical entailment and substitution established within a felicitous form of life.

To show this, let us first consider a form of life which contains only rules for the use of language, and statements ~~totally~~ sanctioned by these rules. Such a language might contain the rule: 'Bachelor' means 'unmarried man'. This dreadful philosophic shibboleth can (in our usage) be said to ~~fully~~ <sup>totally</sup> sanction or to warrant, statements such as 'Nothing is a bachelor and married', etc. We shall accordingly call any such statements 'warranted'. These are such that their negation is impossible. (For instance if we negate the above statement about bachelors, it follows that something is a bachelor and married, and then from the definition of bachelor it follows that something is married and unmarried.) Let us say that the negation of a warranted statement is 'interdicted by the rules'.

Both the above types of statements are to be distinguished from those which are neither totally sanctioned (i.e. warranted) nor interdicted by the rules of the language. E.g. 'The bachelor has a green tie'. We shall henceforth call these latter 'sanctioned' statements, or -- for purposes of stressing the distinction -- 'merely sanctioned'. And we shall now use 'permitted' as a generic term for both 'warranted' and 'sanctioned'.

We call the rules of a form of life 'weakly compatible' if i: there is no warranted statement, or conjunction of such statements, within this form of life which entail(s) lexically or logically any two statements which are mutually incompatible; and ii: there are none but warranted statements in this form of life. But note that in such a language one could only talk in the lexical equivalent of tautologies. A very intriguing situation. But -- unless language is all -- a most unfortunate state of affairs.

Let us relax this condition and also permit within this form of life statements such as: 'The bachelor has a green tie', which are merely sanctioned. Since any such statement is not interdicted it follows by definition that none of the statements it entails -- lexically or logically -- are mutually incompatible. (For if its consequences were incompatible, the statement would be impossible, and thus unsanctioned.)

Now let two such (merely) sanctioned statements be true. If the analogy with logic were to hold, we would expect that all applications of lexical rules to these would yield mutually compatible results. But this hope is chimeric. For, in contrast to logic, the patterns of lexical entailment establish particular relationships between words. These -- in certain cases -- may run counter to those which hold among the referents of these words. In this way two sanctioned statements may be individually true, but (when the subject matter they describe has characteristics which run against the grain of those envisaged in the language) a conjunction of these two "true" statements may be considered false or nonsense in terms of other rules. Thus in contrast to the rules of logical entailment, the conjunction of two lexically true statements may be interdicted because of their entailments.

Consider, in this respect, the language of a tribe which is nearly color-blind. The members of this tribe cannot normally distinguish red from brown. Let us assume that within their language there is a word 'red' which is defined as the color typified by cardinal's hats or mud; i.e. 'If anything has the same color as a cardinal's hat, call it 'red'; if anything has the same color as mud, call it 'red''. This is a reasonable rule in such a circumstance. It is similar to the practise of the politically half-blind who call anyone left of President Johnson 'a red'. Let us also assume that within this form of life there is a rule which establishes the incorrigibility of all first-person phenomenal descriptions; i.e., all

statements of the form 'I perceive this as...' are true when used under normal conditions.

Now let an enterprising member of this tribe discover that after eating a special root it becomes possible to discern a marked difference between the color of cardinal's hats and that of mud. The native now can say 'I see this Russian flag as red'. And he can justify this for it appears to have the same color as a cardinal's hat. Further, since statements of this kind are, by hypothesis, incorrigible within his language, his utterance is to be considered true. But at the same time, and for parallel reasons, he can say: 'I do not see this flag as having the color typified by mud'. This again is to be considered true. But when he combines these two true statements, the native asserts: 'I see something as red which at the same time I do not see as having the color of that which is red', this latter is nonsense.

No existing rule within the language can ban the ascription of truth, singly, to either of these statements. But, in contrast to logic, the conjunction of these two statements entails an impossible proposition such as the above.

Let us now imagine that the native is brought up before the court of language. Familiarly enough he is accused of breaking some of its rules. His judges inform him that nothing can appear as red and not as red. But he answers: 'Nevertheless I see something as red and not as red'. He then suggests that they sample his root. The court accepts, perceives the difference, and painfully aware that something is wrong decides that some of the tribe's color-rules, together with the patterns of lexical entailments they had sanctioned, must be revised.

The above example attests to the fact that language <sup>may</sup>/change ,

and that a fortiori its rules and the patterns of entailment relations established within it also change. Thus if one claims that the rules of language -- like those of a game which works -- are applicable to any situation which develops in the course of their use, we seem to be forced to make the very strong claim that no situation similar to the above can develop.

Obviously this is a highly unrealistic condition. But let us define compatibility in terms of it, and then fit this to actual language as best as we can. To do this we consider, as above, a form of life with its rules and warranted statements, together with further statements which are merely sanctioned. We shall say that the rules of such a form of life are strongly compatible when there is no pair of true permitted statements whose conjunction -- logically or lexically -- entails mutually incompatible statements.

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It would be well to pause at this stage to visualize what we are saying; and to do this let us look more closely at the fundamental analogy of language to game, or of felicitous form of life to the playing of a game that works. The analogy is undoubtedly a fruitful one. For in certain respects language is very much like some games, for instance that of tennis or chess. Formation rules apply to language, just as the equivalent rules in chess or tennis respectively specify the initial configuration of pieces on the board, or the starting position of the tennis ball. And further, just as the rules of lexical transformation determine (in respect to each initial expression) a set of statements whose assertion is sanctioned in



terms of them, and a smaller set that is warranted, the rules of these games also specify a set of possible moves, any of which are legitimate and a smaller set which are mandatory. (E.g. You can serve the ball any place into the opposite front square, and you must hit the ball before the second bounce.)

BUT -- and here is the salient difference between languages and games -- the rules of any game that I can think of apply to only one game at a time. And since each game forms its own closed system, the rules need only determine whether one move, or one sequence of moves, is legitimate or not. (Even if two games are being played on the same field, except for cross-talk, each is played by itself without essential reference to the moves made in the other.) The criterion which the rules of a game must satisfy are then simple enough: all rules applicable to any one situation, at any one time, must yield the same or compatible results. Now let us contrast this with language-use. Associated with any initial meaningful expression there is -- generally -- a set of many other statements whose assertion is permitted. But, unlike the case of the games we have noted, all of these statements can be legitimately formed at any time. Thus, as we have pointed out, the criteria which the rules of felicitious form of life must satisfy become quite complex. For they must not only determine (as in chess or tennis) merely whether a move is legitimate or not. If the rules of a form of life are to provide for its felicity, they must establish the legitimacy not of one possible move but of the entire set of all putatively legitimate moves, together with all their consequences.

It is at this point, I think, that the analogy between game and language breaks down. When one claims that all philosophic problems

are due to a misuse of language, this special sense of 'language', presupposes characteristics which are most ungame-like. The analogy is no longer that of language to game, with all the fluidity and variety which these contain, but of language to the marmorean structure of a logical system.

Now is the philosopher to study the rules of such a language? If so, I think he would have to be extraordinarily sanguine to expect to find one. Is it not incredible to maintain that the rules of language are set up in such a way that they automatically apply to any situation which might develop in the course of their use?

But the philosopher cannot fall back to study the rules of a language which is weakly compatible. For although its rules would be invulnerable to revision and, by definition, free of contradictions, such a language would not, could not be a machine which worked. Since the only statements it contains are well-warranted statements, it could be no more informative than an oracle which answered only in tautologies.

I think the only way out is to insist that any felicitous form

of life is determined by rules which are generally strongly compatible, but that this form of life also contains within itself rules or procedures for the alteration of its established rules whenever these prove incomplete or wherever they run amok of some recalcitrant experience. This I suppose is the relevance of (INV)-83::

Doesn't the analogy between language and games throw light here?...is there not also the case where we play -- and make up the rules as we go along? And there is even one where we alter them -- as we go along."

But if this is so, these alteration-rules must also be complete. Or at least the general guide-lines within the language must be sufficiently complete to tell one unequivocally how an established rule is to be altered or supplemented. As noted earlier, the language -- if felicitous -- cannot brook the possibility that the change can proceed in different ways.

Let us stress the importance of this last point. For if at some crucial turning there were two or more equally attractive and equally sanctioned ways in which to alter some defective rule, philosophers qua philosophers might very well be just those who advocate alternative modifications or -- in Waismann's terms -- different "visions". And if this were so, their dispute would be due not to a misuse of language, but to its breakdown, and thus the strong linguistic thesis would be infirmed. (We develop this notion in Part III.) Again it seems extraordinarily sanguine to believe that at each possible turning point the way which is to be chosen is already determined.

And yet this must be so, if the advocate of the linguistic approach can say when confronted with any intellectual confusion of this

sort that a rule must have been broken.

I think it is clear then that the rules of lexical entailment and substitution of a felicitous form of life must, in general, be strongly compatible. No conjunction of true statements permitted within this language can entail (lexically or otherwise) mutually incompatible consequences. And if this incompatibility develops at any time there must also be a second system of modification rules or tacitly accepted alteration-procedures to take over. These latter change or supplement the established rules and, as it were, purge the system of whatever zones of incompatibility that appear within it.

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#7. We can now summarize the results of this long discussion. The rules of any fully felicitous, i.e., perfectly working, form of life must be strongly compatible, and complete, and the description of these rules must be unique and acceptable by all rational fluent users of the language. This fullness of felicity in all likelihood is wholly unobtainable. But we have noted that a limited incompleteness and lack of uniqueness can be tolerated. Novel situations can develop for which there are no present rules, or too many. In the first case we can envision language-users making up their rules as they proceed, and in the second adjudicating between alternative descriptions inasmuch as the consequences of one runs counter to the canonical forms of ordinary usage. And in a third situation we can consider language as running amok of some recalcitrant experience. In each of these cases alteration or supplementation of existing rules is mandatory. But rule-change of this kind can guarantee felicity only if the rules or procedures governing such change are themselves substantially

complete. Thus any breakdown in completeness or descriptive-uniqueness demands another set of complete rules and procedures to back it up. It is, I think, in this sense that Wittgenstein writes:

It is what human beings say that is true and false; and they agree in the language they use. That is not agreement in opinions but in form of life" (INV) -241.

There is a dynamism in this agreement which works out its answer as language and the experiences it <sup>adumbrates,</sup> develops. If we consider the rules of language to be complete in this dynamic sense of governing not only usage but change in usage, we can define felicity thus:

Subject to the above-noted restrictions,

w is a felicitous form of life = DEF All rules of w are strongly compatible, complete, uniquely describable, and acceptable by all fluent rational users of the language of w.

Premise (1+) follows from this definition. Thus as claimed above, the statement of felicity is part of the statement of a sufficient condition for the assertion of the linguistic approach.

We have also argued that if any of the conditions of felicity are not satisfied in some form of life -- if its rules are not strongly compatible, or are incomplete, or if truly alternative descriptions of its rules can be established, or if the rule-descriptions are not universally acceptable -- then the linguistic thesis cannot be asserted in respect to this form of life.

Thus the felicity of a form of life is certainly presupposed as a necessary condition for the assertion of the strong thesis. And, at the same time, this felicity provides part of a sufficient condition for this assertion. We conclude then: to the extent that a language is felicitous, to that extent -- and only to that extent -- can the strong linguistic approach be justified in its application to philosophic problems expressible within it.

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#8. We now tie the knot to this long introductory discussion. In the course of these chapters we have singled out two general explanations for the continued appearance of philosophic problems, and for different reasons we have decided not to investigate two others. Both of the theories selected, however dissimilar their contents, are remarkably alike in their structures. Both of them envisage a system in which rules are applied to specified sets of initial elements. These elements, in the case of the classical approach, are the self-evident principles of the various sciences. In the linguistic approach ~~as in the case of the classical~~ permitted true statements of the form of life under consideration constitute the initial elements of the system. The rules applicable in the classical approach are those of deductive logic. Within the linguistic approach these latter rules are supplemented with those of lexical entailment, of definitional substitution, etc. (In this way the linguistic approach contains the rules of the classical system as a proper part of its own.)

In both systems it is assumed that the rules applicable to the elements are such that no possible application of the rules, if correct,

can yield incompatible propositions. It follows -- under these assumptions -- if philosophic issues appear, with their characteristic pattern of claim and counterclaim, that an error has been made. For the classical approach the source of error is two fold. Either the apprehension of the first principles may be faulty, due to an excessive reliance upon the familiar rather than the intelligible, or else an error has been made in reasoning. For the linguistic approach since its initial elements are both true and at least sanctioned -- and one is not concerned with facts -- error can arise only in the use of the rules of language.

This applies to all philosophic issues; of particular concern to us, it applies to those concerning existence. Thus if the classical approach is correct, all existence-statements, of which we can have certain knowledge, are either self-evident or demonstrable consequence of the former. And if the linguistic approach is correct, the language with which we talk about existence, or which uses 'existence', is felicitous.

Given this, any general study of the logic of existence-statements, along the lines we have proposed, may well inquire:

- a) Are existence-statements provable in the classical sense?,  
and if not
- b) What purpose, if any, do putative proofs serve?

and

- 2a) Is the language with which we talk about existence felicitous?,  
and if not
- b) Is the appearance of mutually incompatible existence-statements necessarily the result of error?

These two sets of questions will occupy us for the remainder of the thesis. We shall find that the answers to the a-questions are generally negative. This will force us, in answering the b-questions, to reappraise in a fundamental fashion, our assumptions concerning the logical characteristics of the stratum of language in which existence-statements typically appear. It is this reappraisal which gives direction to this thesis.

Our starting points in this are the notions of provability and felicity, and to the first of these we now turn.



PART TWO

The Classical Approach and the  
Provability of Existence-Statements

## CHAPTER FIVE

### The Classical Approach: Disproof

#1. Within this and the following chapters, we study the claims of the classical approach. These are centered about the belief that necessary truths, existence-statements among them, are either provable or self-evident. We have already seen that the tenets of the classical approach do not appear to be borne out in actual practise. This discrepancy between theory and evidence imposes a twofold task upon our study. First we must determine if this intuitively natural position does fail, and if so, why. Secondly (if this is the case) we must re-appraise the role which demonstration and rational argument play in discussions concerning existence. For if propositions of this kind are not provable, what is the purpose of arguments concerning them?

It will be convenient to begin with a discussion of certain ontologies which seem to be disprovable. The results of this preliminary discussion might cast a favorable light upon the classical approach and its claims. For we do show that various bodies of existence-statements and beliefs about existence can be disproved. But it is a wintry light. For these are exceptional cases and we shall soon see why. Once we have cleared away this matter, we can proceed to the substance of the chapter.

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#2. For many philosophers today, few or no non-trivial statements about existence are either provable or disprovable in any way. Were this not the case, the positivists

could never have argued that all metaphysical statements were meaningless. The present section will investigate one part of this claim, i.e., that few or no non-trivial existence-statements or ontological positions are disprovable. We shall use 'prove' and 'disprove' in a wide sense and say that 'p' is proved if 'p' is the conclusion of a sound argument, and 'p' is disproved if 'not-p' is the conclusion of a sound argument. We make no further stipulations concerning the premises, other than the customary ones: that the conjunction of premises be free of contradiction (at least under the intended interpretation) and that each premise be accepted as true by all users of the argument.

To test the claim that few if any non-trivial ontological positions are disprovable, let us look at actual examples of ontological refutations. (Within the following, as throughout the thesis, omissions from the original text are indicated by means of dots; brackets are used to set off explanatory material.) Our first example concerns the monistic materialism of some members of the Milesian School. Among these

1) [Thales claims that water is the limitless world stuff out of which all the other elements are formed. Aristotle argues that this is impossible]:

The infinite body [cannot] be one and simple ... for the elements are opposed to each other ... and if one of these were infinite the rest would have already been destroyed " (KR 107).

To fill out Aristotle's cryptic remarks, let us recall that the elements, e.g. fire and water, like warring states are considered to oppose each other. Accordingly, if one were of limitless power, as Thales and others

claim, it would not have formed the others. Rather it would have annihilated them.

2) [Ultra-realism, we may recall, is the queer doctrine that there is one substantial, i.e., thing-like, extra-mental object corresponding to each universal term. Occam, not in sympathy with this position, suggests a destructive argument of the following kind ]:

It is agreed by all that the universal, e.g. the attribute of having power, is predicated of two subjects. Consider that it is predicated of the present King of England and of the Pope. If such a universal is one substantial extra-mental object, then the same predicate must be in Rome and London at the same time. This is absurd. [No one thing can be in two distinct and distant places.] Ergo the universal is not substantial and extra-mental"

Occam (2) I, C, XVI, p. 37.

(Occam has in mind a proposition such as 'The King of England and the Pope both have power'.)

3) [Berkeley states Locke's doctrine of abstract ideas]:

"We are told, the mind being able to consider each quality singly, or abstracted from these other qualities with which it is united, does by that means frame to itself abstract ideas."

He then assumes that these must be images within the mind and then argues that there are none:

EUPH. Do but try now whether you can frame an idea of number in abstract ....

ALC. Can it be so hard a matter ....? Upon which Alciphron paused awhile, and then said, to confess the truth I do not find that I can.

EUPH. .... If other men's faculties may be judged by mine, to obtain a precise simple abstract idea of number, is as difficult as to comprehend any mystery of religion"

Berkeley (1) p. 293.

4) [The following argument shows -- if one accepts Leibniz's premises concerning the unicity of beings, and the principle of sufficient reason -- that a res extensa, a substance whose whole being is pure extension, is impossible]:

If matter is extended, it is mentally divisible. But, if its parts have being, each part must be one. ['Being' and 'one' are convertible terms.]

But for them to be one, they must have some property other than extension which accounts for their unity [i.e., there must be a sufficient reason].

Ergo it is impossible that there is a substance which is pure extension.

5) [The following is an abstract, or perhaps a complete reformulation of an argument of J. N. Findlay (1952)]:

Let us agree that for God to be an adequate object of worship all His properties must be necessary ones. Let us call all properties of such a God, 'F'. Let us assume that this entails: 'God, as an adequate object of worship is F' is a necessary statement'. But if one accepts a

current doctrine that the necessity of a statement depends upon the rules according to which one uses words, then any necessary statement -- pursuant to a change in the rules -- may be otherwise. But if 'God ... is F' is not necessarily necessary, 'God is not-F' might be true at some time. If we consider God as timeless, one is forced to conclude that we cannot say 'There is a God whose every property is necessary'. For at some time, He may have a property, i.e. not-F, which is not necessary. In other words, the assumption that a perfect object of worship exists entails impossible consequences. From this we conclude: God does not exist'.

All the above arguments share one common feature: they examine an ontological position and show in one way or another that its premises lead to conclusions which are demonstrably inconsistent with some body of propositions. These latter statements are advanced as incontrovertibly true; and in this way the ontological position under attack is claimed to be effectively disproved. Thales in Aristotle's opinion uses the notion of element in a self-contradictory manner. Descartes, according to Leibniz, is inconsistent; the notion of a purely extended (and infinitely divisible) substance leads him to contradict propositions which he and any rational man must accept as true. Locke's position, in Berkeley's eyes -- just as ultrarealism in the view of its successors -- contradicts the given. Similarly the ascription of existence to an adequate object of worship runs counter to other accepted tenets of the current conceptual scheme.

More generally, an ontology,  $O$  is disprovable if  $O$  itself is demonstrably self-inconsistent, or if the consequences of  $O$  are incompatible with some statement(s) in a body of statements,  $T$ , the truth of which is considered to be incontrovertible. (By the 'Incontrovertibility' of a statement, I mean that the truth of the statement in question is either self-evident, or self-validating, or indubitably or incorrigibly true in some other way.) Under such conditions,  $O$  is indeed disprovable. For, as the case may be -- and in terms of  $T$  -- it is logically, or conceptually, or factually impossible for  $O$  to be true.

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#3. Would these examples then show that after all something can be disproved in ontology? In a way, yes. But what warrant has one that the premises introduced within the argument are incontrovertible? For this presupposes a common public agreement about what is to count as incontrovertible. Might Thales, for instance, not have considered the ontological primacy of water more self-evident than the finitude -- or opposition -- of the other elements? Might Locke, upon further reflection, not have declared that the existence of abstract ideas was more incontrovertible than any evidence Berkeley might rely upon? Might not a convinced believer remark to Findlay: 'My boy, you've picked up the wrong end of the stick'? And similarly with the others?

Any ascription of incorrigibility to statements is itself open to question whenever any of the following conditions hold. The concepts employed within a given statement are not well-defined, nor changeless, nor fully determined. The meanings of the words appearing within the

statement are either vague, or ambiguous, or obscure. The criterion for the acceptance and rejection of extra-conceptual data is not fully established or defective. The ascription of truth to statements previously accepted as incontrovertible is vulnerable to change in respect to recalcitrant experience. -- And where but in the Islands of the Blest is this not the case?

It is in fact a recurrent feature of philosophic discussion to introduce, or to assume, certain tenets as incontrovertible, and then for other philosophers to find good reasons to controvert them. For instance, the thinkers immediately following Zeno were convinced that everyday objects contradicted themselves. The Pythagoreans believed in the harmony of being: the heavenly bodies by their very nature must embody the simplest and most perfect motions. Plato and Aristotle both believed in the self-evident truth of first principles. Occam, for all his appreciation of the contingent, believed in the indubitable truth of Holy Writ. The thinkers of the seventeenth century accepted as self-evident a world of absolutes in which the laws of nature could be rigorously demonstrated, as in geometry. The following generations held the Law of Causality to be inviolate. Where are these beliefs now? Nor is this the wake only of past incontrovertibles; one has only to consider the stir which Russell's paradox, Quine's "Two Dogmas of Empiricism", and Gödel's incompleteness proof have occasioned in more recent times. It is not unwarranted, in view of this, to consider -- given sufficient perspective -- that the statement of any beliefs which are unassailable today may in a future time appear as curious and unconvincing as the pronouncements of Thales that all things are made of water.



I do not mean to argue that all concepts and relations inevitably change, that there can be no hard core, nor norm; but only to draw the conclusion that to some extent even the fundamental concepts which concern us here, such as Element, Existent, Totality of things, That-which-is-self-evident, etc., as they are instanced in actual ontologies are not invulnerable to change. And to the extent that these are alterable, relations which necessarily hold among concepts at a particular time -- as well as the incorrigibility of particular statements about extra-conceptual objects -- can at a moment's notice cease to be considered as incontrovertible. Thus the grounds for a time-free refutation of an ontology, either in terms of itself or in respect to a commonly accepted body of statements outside itself, are undermined.

This is not to say that at any given instant of time, a statement may not be characterized as incontrovertible, and that the truth or falsity of other related statements may not also be determined on this basis. But (if) once this instant is past and the particular ascription of incontrovertibility is no longer in force, in such a case all that remains unquestioned must be stated in the form of a conditional proof, or with the annotation 'conclusive at such a time'.

This means that at any time the author of an ontology at bay -- when confronted with an effective refutation -- can rely upon the lack of specificity, or definiteness, or closure, or completeness of the general network of his contemporary conceptual scheme, and argue his way out. He is free to claim that the interpretation upon which the refutation is based may be faulty, as a defender of Locke's position might argue against Berkeley; or that the premises contained within the

refutation are not acceptable, as a theist might point out in respect to Findlay; or that the conceptual interrelations stated within the argument are inexact, as a latter-day cartesian might claim in respect to Leibniz' attack. There are many ways to skin a cat, or to make an ontology invulnerable to otherwise destructive arguments. As Smart observes [if a philosopher] "has landed himself in inconsistency or in nonsense, and . . . . he must therefore give up certain of his tenets, it is impossible to prove this to him. He can always patch up" Smart (1) p. 133.

In view of these considerations, it would be more judicious to conclude that the arguments in the above examples do not disprove an ontology but serve to invalidate a totality of statements. If conclusive, they demonstrate that a given ontology, together with other statements and the definitions of terms contained within them, form an inconsistent totality.

To summarize. There are then existence-statements and ontological positions which can be disproved, but only because they are impossible. They are either inconsistent with their own premises (and as such logically impossible) or they are inconsistent with an accepted body of incontrovertible statements and as such their assertion is conceptually or factually impossible in respect to these statements. But despite this, the lack of definiteness of most existence-statements, and the sliding weight of truth one may assign to other premises of the refuting argument' effectively mitigate the force of a conclusive disproof. There are, it is true, a few cases in which once-flourishing ontological positions actually have collapsed before the onslaught of effective destructive arguments, as for instance ultra-realism. But to see this as a victory for logic is to miss half the story. If one position does gain the field,

It is not "truth" itself which wins out. It would be more exact to say that the effort necessary to circumvent these arguments becomes more than the defenders can afford.

The conclusiveness which we ascribe to any extra-logical disproof -- or proof for that matter -- is relative to the weight of truth and incontrovertibility which we ascribe to the changing contents of a body of statements and rules which hold at any given time. These are, among others, statements of fact, of theory, of conceptual interrelationships, of beliefs, and of procedures for determining the truth and acceptability of new statements. Disproof of any actual ontology is conditional. It does not serve to refute an ontology, but to make the totality--statement of an ontology + statements accepted as true or incontrovertible at a given time -- inconsistent. And as a consequence, some statement(s), not necessarily within the ontology, becomes untenable.

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#4. Within the preceding sections we have shown that when a body of self-inconsistent existence-statements satisfy certain conditions of definiteness, etc., it is possible to disprove the ontology they establish. Similarly if a proposition, either in an ontology, or entailed by it, runs counter to some incorrigible, or incontrovertibly true statement -- provided the warrant of this latter is truly unchallengeable -- such an ontology is also disprovable. But such existence-claims are merely the brambles of thought, and if excised so much the better. For (fundamentally) we are not interested in what is impossible in one way or another. Rather our concern is with those bodies of propositions about existence which are

possibly true, and which claim to be true. To these we now turn.

Let us now outline the steps the following discussion will take. We wish to show that, except trivially, existence-statements are neither unconditionally proveable nor disprovable. To establish this, we analyze one of the necessary presuppositions of the approach: the belief in the incontrovertible certainty of necessary truths. In the course of this analysis we find that the types of statements which might be considered necessary are either too weak or (in a sense of the term which we shall clarify) not necessarily necessary. If so, then the power of these propositions to confer an unconditional certainty both upon themselves and their logical consequences, is lacking. But if this is so, the classical approach is untenable. And if this is the case, we must then question the value of employing even fragmentary forms of logical arguments in this field.

More specifically we argue:

- a) The classical approach presupposes that the body of true statements, of which we have certain knowledge, forms a consistent, complete deductive theory, whose initial theorems are self-evident "first principles". (See section 5. )
- b) This means that any statement among the above, if it is not a so-called "first principle", is categorically provable. By this latter term I mean that any such statement is the valid consequence of a proof whose premises are unconditionally true. (See Section 6. )
- c) It follows from the above that it must in some way be impossible for the "first principles" to be false. Further, these initial

statements, singly or together, must be of sufficient logical power to prove the truth of all other propositions contained within a full and correct account of the demonstrable properties of existence.

(See Section 7. )

- d) Thus to analyze the claims of the classical approach, we must investigate whether there are such unconditionally true statements and, if there are such, if these are of sufficient logical power to fulfill their purported role. (See Section 8. )
- e) Always true statements such as these are either contingently true or -- in some sense of 'necessary' -- necessary truths. The necessity of such truths might be associated with any of the following:
- (or physical or nomic)
  - i: natural/necessity, i.e. in respect to the invariance of the relations which hold between certain <sup>physically significant</sup> parameters (such as between time and distance in Galileo's law of falling bodies).
  - ii: necessity in re, i.e. one linked to the "essential nature" of things, and the characteristics of these as stated in real definitions.
  - iii: logical necessity, i.e. that necessity which is ascribable to logical truths.
  - iv: lexical necessity, i.e. linked to the meaning of words.
  - v: conceptual necessity, i.e. linked to the relationships established within and between concepts.

If our discussion is to be fully general, i.e. applicable not only to Aristotle's but to any approach along the same general lines, we cannot ignore any of the above. (See VI 1-5. )

- f) On the other hand it would be an enormous undertaking to investigate each type of necessity in its own right. Rather than this, we consider those statements which must be true or necessary for the others to be considered necessary. We shall not summarize the argument of this section, for we can say little about it in small compass. The results of this analysis are such that the classical approach becomes tenable only if (1) there are either contingent truths in the form of theory-free descriptive-statements, or necessarily necessary extra-logical conceptual truths; and (2) these truths are of sufficient logical power to achieve their purported role. (See VI-7.)
- g) We have reiterated 'necessary' above in talking about necessarily necessary truths. In a rough way this is analogous to the use of 'necessary' in the following. According to the law, it is necessary in Britain to drive on the left hand side of the road. But it is not necessary that the law be established this way. Thus we can distinguish between a statement saying that something is necessary and a comment concerning the necessity of this statement. Applying criteria which we develop, we show that statements of conceptual necessity are not necessarily necessary. Thus, if the foregoing is correct, there are no extra-logical necessarily necessary truths. (See Chapters VII-VIII.)
- h) We also argue that in the absence of such extra-logical necessary truths, contingent truths lack sufficient logical power to achieve their purported role. (See VIII-3 ff.)
- i) But if there are <sup>n</sup>so such truths of sufficient logical power nor any extra-logical necessarily necessary truths (as

we have argued), no extra-logical statements are categorically provable, either in respect to existence or to anything else. Thus this presupposition of the classical approach is not satisfied. Since this approach cannot be asserted if this condition is not satisfied, the approach must be considered untenable. (See VIII-8ff.)

We proceed now to the details of the above.

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#5. We have stated the general presuppositions of the classical approach already in Chapter Two. Before continuing, let us fill out this discussion. According to the classical approach, the cause of any enduring philosophic issue is due to human fallibility. In this sense both the linguistic and classical approaches are in agreement; in fact so are the others we have discussed. Errors may of course be of various kinds, and as we have seen the various approaches single out different facets of these for consideration. But this does not concern us here. What we are concerned with is the concept of the task of philosophy which a typical adherent of the classical approach might hold, and in particular his theoretical justification for entertaining this.

We have noted that philosophy for Aristotle, is the investigation of truth. Somewhat more specifically:

The end of theoretical knowledge is truth...we do not know a truth without its cause...so that which causes derivative truths to be true is most true" (META) alpha 993b 20ff.

And again

...Since we are seeking the first principles and the

highest causes [of being] , clearly there must be some thing to which these belong in virtue of its own nature... Therefore it is of being as being that we also must grasp the first causes" (META) Gamma-1 1033a 26ff.

The task of the philosopher in studying "Being" is to discover the causes and principles of existence, and in particular to seek out first those initial principles which are the cause of all others. Knowledge of these, once gained is as we remember "unshakeable":

Of the thinking states by which we grasp truth some are unfailingly true, others admit of error--opinion, for instance, and calculation, whereas scientific knowledge and intuition are always true... If, therefore, it is the only other kind of true thinking except scientific knowing, intuition will be the originaive source of scientific knowledge, [for intuition] grasps the original basic premises" (POST AN) 11-19 100b 5ff.  
Italics mine.

Thus the basic premises of any science among these that of existence are intuitively-certain truths. Aristotle specifically rejects the suggestion, as stated by the poet Simonides, that the grasping of these is totally beyond human power. (See "Metaphysics" A-2 982b 28ff.) Nor could there be an infinite sequence of such causes--a sequence which would again make the first causes unknowable--for then "knowledge becomes impossible" (META) alpha-2 994b 21. Further, these first principles must be necessary:

Since the object of pure scientific knowledge cannot be other than it is, the truth obtained by demonstrative knowledge will be necessary.



He then continues:

And since demonstrative knowledge is only present when we have a demonstration, it follows that demonstration is an inference from necessary premises" (POST AN) 1-4 73a 21.

The classical approach then must presuppose the existence of first principles which are necessary truths and self-evident to a human understanding. These are the bases of all sciences. From these, all that we can know-- i.e., know certainly--is derivable:

We suppose ourselves to possess unqualified scientific knowledge of a thing, as opposed to knowing it in the accidental way... when we think that we know the cause on which the fact depends, as the cause of that fact and of no other...There may be another manner of knowing as well (i.e. intuition)...What I now assert is that at all events we do know by demonstration" (POST AN) 1-2 71b 9.ff, Italics mine.

The statements of sure knowledge comprise those based upon intuition together with their demonstrable consequences.

We have argued that these premises must be complete, in the sense that the set of premises and their entailments includes all necessary truths. (For were there even one undemonstrable necessary truth, a philosophic issue might develop between those who claimed such a proposition to be true, and those who opposed this claim.)

If we look at the text, we will find that with one exception, this completeness seems to be assumed by Aristotle. For he does discuss undemonstrable knowledge at various places, but he never asserts the unknowability of necessary truths. And in one place he rejects a position

which might argue for their unknowability. Following the citation already used--that the conviction of pure science [ἐπιστάμενον ἀπλῶς = absolute knowing ] must be unshakeable, he continues:

Some hold that, owing to the necessity of knowing the primary premises, there is no scientific knowledge. Others think there is, but that all truths are demonstrable. Neither doctrine is either true or a necessary deduction from the premises...Our own doctrine is that not all knowledge is demonstrative: on the contrary knowledge of the immediate premises is independent of demonstration. (The necessity of this is obvious; for since we must know the prior premises from which the demonstration is drawn, and since the regress must end in immediate truths, those truths must be indemonstrable.) Such then is our doctrine" (POST AN) I-3 72b 5ff.

Thus necessary truths, whether immediate premises or their consequences, are knowable. Aristotle does discuss other forms of non-demonstrable knowledge. But these are either of chance, i.e. non-necessary, conjunctions, as in (POST AN) I-30 87b 19; or of 'non-essential accidents' (POST AN) I-6 75a 18. Neither of these have the characteristics of necessity. Thus in the absence of any other evidence it would seem that the set of initial premises and their entailments include all necessary truths.

There is one possible exception to this claim, and this is in respect to our knowledge of matter. For matter, the underlying substratum of things, is in itself unknowable (META) Z-10 1036a 8. Matter is the cause of the accidental (META) E-3 1027a 13. (As noted above there is no demonstrable knowledge of the accidental.) The characteristics of matter in itself and the accidental properties due to its presence in things, are, as it were, left systematically opaque within the Aristotelean view. But I venture to suggest that since necessary truths are of that which is unchanging (POST AN) I-1 71b 15, it is possible that there may be no first order necessary statements one can make about matter

in itself. Presumably the second order statements concerning our knowledge (i.e. the knowability of) matter are derivable from established premises. Be this as it may, with the exception of first-order statements about the unknowable substratum, it seems probable that Aristotle assumed each science to be complete in the above sense. It is certainly a necessary presupposition of the classical approach.

The final condition, i.e. consistency, is evidently de rigueur:  
 For everything that is true must in every respect agree with  
 itself" (PR AN) 1-32 47a 8. - -

To conclude, the classical approach presupposes the existence of a set of certainty-conferring, intuitively known, necessary truths. These are self-consistent and these (with the possible exception of statements about matter), together with their entailments exhaust the set of necessary truths. Since the principle of contradiction applies to all things, this set is presumably also free of contradiction, (META) K-5. Or, in our earlier terminology, each science forms a consistent, complete, deductive theory. - -

One note before continuing. We mentioned earlier that we were not interested in jousting at straw men. We suggest<sup>ed</sup> then that if a philosopher rejects a thing-and-concept oriented philosophy and even if he eschews formal demonstrations, nevertheless to the extent that he does argue to reach what he considers to be a sound conclusion--as opposed to a merely valid one--his presuppositions, however weakened, are analogous to those of the classical approach. He might very well deny the completeness of his premises. He could not deny their consistency. Nor could he argue that his premises had no special warrant. (For if they were not

certain, or relatively certain, or more plausible than any others, how could he possibly conclude that his position was certain, or more certain, or more plausible than another?) Of course he might merely point out the weaknesses, even the contradictions in another position, and as such clear out the brambles. But most philosophers also try to argue positively. And the moment they do this, they must assume the premises of their argument to be self-consistent and warranted, and at the same time they must accept the fragment of a formal system embedded in their arguments or in its natural language analogue. True they may have little truck with the notion of completeness. But we too will have scant concern for this in the sequel: our analysis will focus upon the warrant one might assign (or cannot assign) to the premises. And thus in showing the unfoundedness of the presuppositions of the classical position, we intend at the same time to challenge the tenability of many weaker approaches.

For instance consider in this respect how Geach argues in a discussion with Quine:

Certain concepts, like existence and truth and thing and property are used, and cannot but be used, in all rational discourse whatever: and ontology is an attempt to scrutinize our use of them. To be right or wrong in ontology means to be clear or muddled about such fundamentals...In an ontological dispute, at least one side (very likely both) will be in a muddle" Geach (1) p. 136.

This sounds like the critical approach. But I should like to point out certain features not alien to the classical thesis. First, there is the assumption, when both thinkers are clear about the concepts they employ,

that there can be no dispute. The above also suggests that there is one way to be right in ontology. Perhaps one might not grasp a concept like a first principle, but nevertheless according to this view there still seem to be certain concepts--with their definite structures--which one is to become clear about. This impression is reinforced by the suggestion that particular concepts are indeed necessary for any rational discourse. And if one limits oneself to analyzing these concepts, in the belief that they are necessary in this way, does one not then presuppose that such concepts, Existence among them, like the objects of an Aristotelean science, are unchanging? Of course a thinker such as Geach is not committed to the classical belief that his science will render him unassailable knowledge of extra-conceptual objects. But as we have suggested above, the objects of his knowledge--some concepts--seem to be unchanging, and there is a correct description of these. (Further any dispute concerning them is due to intellectual confusion, and to be clear about such concepts is a prerequisite of rational discourse.) Considering concepts as a kind of object, is the above position then not a fragment of the classical approach--in the way in which intuitionist logic can be said to be a fragment of classical logic? By this I mean: if we supplement the above presuppositions, the classical approach follows. If we deny the categorical provability of conceptual statements I think Geach's position also founders. For how then could one know that one was right or wrong? And if one could not know this, what would be the point of rational discourse?

I have in the above singled Geach out as a representative philosopher. My point is that, give or take some for natural differences, there is a tendency for nearly any thinker to embrace some of the fundamental

presuppositions of the classical approach. Thus, although the argument of this chapter is directed specifically at Aristotle's clear, strong formulation of strong presuppositions, I intend the brush-off of this study to be of more than antiquarian interest.

#6. Any theory such as Aristotle's, has certain strong properties.

We have already noted one: its conclusions are considered to be categorically provable; its proofs must be categorical and not hypothetical deductions. For instance if  $P$  is a set of statements which are all, in one way or another, unconditionally true, then all valid consequences of  $P$  are unconditionally, i.e. categorically true. If, on the other hand, the statements of  $P$  have no such truth - warrant, their valid consequences are provably true only upon the condition that these premises are true. We shall say that ' $q$ ' is categorically provable, when ' $q$ ' is derivable from a statement or conjunction of statements ' $p$ ', and the latter is in some way unconditionally true.

I do not know if any statements are categorically provable. As a stab, one might say that if logic is unique, i.e. if no viable genuinely alternative logic is formulable, then all tautologies and logical axioms are unconditionally true, and all valid consequences of these would then be categorically provable. But we have already imposed a condition upon the truth of the premises. Thus, only if this condition is totally trivial, i.e. if it can be shown or otherwise known that 'There are genuine alternative logics' is always false, or perhaps absurd, only then could one be certain of the unconditional truth of the logical axioms, etc. But

how could this be shown, or known, except in terms of a particular logic? So again we appear to have imposed some condition upon the premises.

Be this as it may, as we have seen, for Aristotle the first principles of any science are unconditionally true and their demonstrative consequences, i.e. via syllogistic, are then categorically provable.

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#7. Paradoxically, one cannot talk of unconditional truth without some reference to the universe of which contains the individuals they describe. For instance a general statement unconditionally true in the world we know, might not be true without strings attached in all possible universes. Although conversely, a statement true in all possible worlds, would be true within our own. Thus if we are interested in showing that no statements, or few, might be considered unconditionally true, we need--fortunately--only prove this for some world.

The alleged unconditional truth of Aristotle's first principles must hold in respect to our world, and presumably Aristotle himself can, in general, make no stronger claim. For, within the "Analytics" at least, first principles are said to depend in a way upon sense-perception. (POST AN) 11-19 99b 39. And it would appear difficult to explain how one could perceive in this world that these principles were true of all worlds. So we need consider the alleged necessity of these statements only in respect to our world. And, as noted above, if this limited claim of unconditional truth is untenable, we need not investigate any stronger claims.

But, whatever the universe one discusses, the initial premises must be of sufficient logical power to demonstrate all the necessary

properties of the objects contained within the sciences. Strictly speaking, we should have said 'state or demonstrate .', for the first principles may state without demonstration both that the object of the science exists, and define this object. (POST AN) B 72a 18-24. But let us assume tacitly that a premise implies itself, so that we can avoid this circumlocution.

Thus we can say that the classical approach presupposes i: the existence of premises which are intuitively self-evident, unconditionally true (within our world) and ii: these are of sufficient logical power to categorically demonstrate all necessary truths about this world.

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#8. Our tactic is now clear. To analyze the tenability of the classical approach, we must investigate whether there are statements which satisfy the first condition and if such statements are of sufficient logical power to satisfy the second. We have argued repeatedly that if this is not the case--if these presuppositions are not satisfied--any explanation for the enduring presence of issues concerning existence, if it is based merely upon human fallibility along the lines of the classical approach, is inadequate.



## CHAPTER SIX

### Necessity

#1. To say that a statement is unconditionally true in some sense, is to say -- with equal imprecision -- that it is necessary in some sense. Aristotle, within his philosophical lexikon, writes "that which cannot be otherwise, is necessary as it is" (META) Delta-5 1015a 20. But none of these paraphrases help us very much. Our first task is then clear. We must study the use, or uses of 'necessary' and related terms. (For we cannot investigate whether there are statements which can be said to be "necessary" until we understand more clearly what may be intended by this all too freely bandied word.) Within the following we distinguish various uses, or applications of the term "necessity". We then consider whether 'necessity', when used so, is informative. Among these, we find two types which must be true for the others to be true. As earlier, we distinguish:

1: natural (or physical) necessity. Scientific laws may sometimes be said to be necessary. Or perhaps it is because of them that one says: 'So the following must occur'. But whatever can be expressed vaguely along these lines in terms of 'must' or 'necessary' can be rephrased clearly if we use 'invariant' and 'determinate' as in the following.

A property or a relation is said to be determinate if it remains invariant, i.e. unaltered, in respect to changes in a reference-frame. For instance the shape of a chess piece remains unchanged in respect to any alteration of its position on the board, i.e. its shape is a determinate property of the piece in respect to changes in position. Or again (in classical mechanics) the shape of a rigid body remains invariant

in respect to changes in time, position, and velocity: and thus shape is a determinate property of a rigid body in respect to the reference-frames of time and space. But let us note the invariant need not be a simple property. For instance, if we consider the statement of Ohm's Law, it is the relation of identity between voltage and the product current  $\times$  resistance which remains invariant. And it is this relation which is said to be determinate. Or, in more complex situations such as those envisaged in quantum mechanics, it is merely the probability of an event's occurring which is said to be invariant.

However complex or abstract the invariant may be, we can say that the property,  $F$ , of  $a$  is determinate (in respect to some reference-frame,  $RF$ ) when for all values  $\emptyset$ , of  $RF$ ,  $a$  is  $F$ ; and for a class of individuals, the property,  $F$ , of any member,  $x$ , of this class is determinate when for all values of  $\emptyset$ ,  $x$  is  $F$ . And similarly for relations of any degree of complexity. Scientific laws in general, state that a determinate relation holds between certain entities, properties, etc. for a specified range of values in some given frame(s) of reference. The principle of gravity, e.g. states that at any position in time and space (i.e. for all positions in these reference-frames) a particular complex relation is invariant, namely: the force exerted by one body upon another varies inversely with the square of the distance between them.

When such a condition of invariance is satisfied--particularly in respect to an omnipresent frame of reference such as that of time or space, etc.-- one can say that  $Fa$  is naturally necessary. Similarly a determinate relation between  $a$  and  $b$ ,  $Rab$ , etc. can be said to be naturally necessary. And thus the ascription or non-ascription of 'natural necessity'

is relative to the frame of reference in terms of which the invariance is or is not established.

In the above we have viewed natural necessity as a property of certain states of affairs, e.g. of an  $a$  which is  $F$ , and  $a$  which is  $R$  to  $b$ , etc. Others, on an analogy with logical necessity, might consider natural necessity to be exclusively a property <sup>of</sup> statements, i.e. of those propositions which state that a determinate property or relationship holds in respect to some entity or entities. To accommodate this usage, let us say that if  $p$  is naturally necessary, ' $p$ ' is naturally necessary. (We need in the sequel consider natural necessity then only in respect to statements, either individual or general.) Now what are the components of an expression which can be said to be naturally necessary? In an old-fashioned view of science, scientists are supposed to describe and then to do sums. The describing, although fastidious, is considered to be neutral, so that anyone can do this. Were there such a science, any propositions contained within it could be expressed in terms of theory-free descriptions, supplemented with the appropriate logical and mathematical signs. By 'theory-free description' I mean a description which any normal observer might be able to relate in a given situation, irrespective of his theoretical and conceptual formation. For instance, any person with normal vision might say: 'I see the sun going down', or if he wanted words for the sun, he might improvise: 'I see that reddish round object moving down', or if he lacked even these terms, he might utter: 'I see that, which is like this (drawing a circle) and this (pointing to my sunburn) going like this' (pointing down).

In contrast to this, it takes a considerable amount of

sophistication to observe in the same situation: Yes, you see it as if the sun were going down, but it is the earth which is turning away'. This latter observation carries the conceptual scheme of the theory along with it. Without this theoretical background a statement of this kind would be no more warranted than its negation. Since it is possible only in the context of a theory, we say that a statement of this latter type is theory-laden. It is evident that most, if not all scientific statements are of this latter type. And if they are, one cannot assert the necessity of any such propositions without presupposing the correctness of the conceptual structure which enables the observation to be established.

We are then left with two ways of ascribing natural necessity.

1) This necessity may be ascribed to a theory-free description. In such a case, the aptness of this ascription depends upon the correctness of the description alone. 2) In other cases (and these latter I suppose are representative) the statement that 'p' is naturally necessary also depends upon the correctness of the conceptual structure in terms of which it is asserted. But however ascribed: "p' is naturally necessary' can be shown to mean that a determinate relation holds among certain entities, properties, relations, etc. which constitute the state of affairs, p.

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#2. We continue now to the second use of 'necessary':

ii: necessity in re. The doctrine of essentialism maintains that there is

an absolute preference in the selection of terms that are to be employed in defining an object. For according to this belief it is the attributes so named which are responsible for the object being what it is. It is these that constitute its "essential" nature:

A definition is a formula exhibiting the cause of a thing's existence...an indemonstrable positing of essential nature" (POST AN) 11-10 993b 38, 994a 11.

Thus the correct (real) definition of x states those configurations of attributes which x alone must have to be x. And, the choice of these defining terms is unique:

It is impossible that there should be more than one definition of the same thing" Aristotle "Topics" VI-5 142b 35.

Now were the objects concerned merely elements of a formal system, essentialism might be accepted as a colorful albeit cumbersome doctrine of definition. For in nearly any formal system of sufficient richness, statements are inter-derivable in such a fashion that it may be only a matter of convenience which dictates the selection of certain ones as definitions. Thus essentialism (in insisting that there must be an absolute distinction of kind between the definition and its consequences, within a formal system might prove inconvenient, but still <sup>generally</sup> feasible.

But I fail to see how this can be the case among the elements of an untidy reality. Man for instance might be defined in terms of different species-specific characteristics. One might for example settle upon rationality. But we might also chose some other allegedly unique characteristic, say some configuration of blood factors or of DNA molecules. Man is a rational animal. Man is an animal with rhesus-minus, etc. And

let us assume that a rational psychologist can derive many of man's characteristics from the first definition. But we might also assume that a good blood chemist could derive some of man's characteristics from the second definition. Thus both can, as it were, exhibit a "cause" of man's existence as he is. But it is obvious that the two definitions are not logically interchangeable, in the manner of definition and theorem in some formal system. Man it seems is definable in different ways.

Yet essentialism singles out some possible order among the various properties of an object and views this as the order. This selection is often arbitrary. Certainly no reliance upon sense-perception would induce one to define man as a rational animal! (And it is from sense-perceptions, Aristotle argues, that the universal, say, Rationality, is grasped.) Or, to use an historically earlier example, were one to define man as a two-legged animal, or as a featherless biped, again one cannot show why this is to be preferred, or rejected in some absolute fashion.

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If however, one does couple this doctrine of definitional essentialism, with a further belief that there is a unique ordering relationship amongst all entities, say in respect to a chain of being, then one can justify one's choice, say of Rationality, in reference to the position which man occupies in this chain. But the problem reappears: How can one justify the uniqueness of the ordering relation? Aristotle for instance also employs a second frame of reference in his biological works. Creatures here are classified in respect to their mode of generation and to their "vital warmth". See Ross (1) p. 116. This is independent of the former.

In other words, one can justify the uniqueness of a real definition only in respect to a conceptual scheme which singles out certain values as essential. Thus in each application of an essentialist position

there is also some covert factor which is theory-laden, or bound to a particular conceptual scheme. We will return to this point in the following. For the present let us note that if one maintains an essentialist position, a real definition displays those characteristics of the defined which the object must have to be itself. And since what is defined is not the individual but the species e.g. Man, Number--and these are considered to be unchanging--the definition states what in the nature of things cannot be otherwise, i.e. what is necessary in re.

#3. In the above we have argued that there are two distinct types of statements underlying the uses of necessity already discussed. The first (if there are such) are theory-free descriptions. The second are theory-laden descriptions or definitions, as the case may be. The assertion of these latter is warranted only in terms of the conceptual structure which enables them, or in terms of which they are expressed. We shall soon investigate the alleged necessity associated with conceptual structures. But for the present let us look at the third use of 'necessity', which in many ways is distinct from the above,

iii: logical necessity. Fortunately we need not linger about this prickly theme. The reasons for this will soon become clear. First let us distinguish two uses of 'logically necessary'. When for instance Aristotle asserts that the principle of contradiction "is a principle in all things" (META) K-5, it is clear (since it cannot be otherwise) that this law of logic is necessary. But what is being said now? We propose, simply this: There is a complex predicate To-be-subject-to-the-law-of-contradiction, and this predicate is invariantly associated with all existents, irrespective of time, place, etc. Thus in this use of

'logically necessary' describes a case of natural necessity. It of course has this distinctive feature that it applies to all things: it is an invariant predicate of all entities in any normal reference-frame.

But it would be unfair to Aristotle to leave it this way. For this principle is also considered a logical truth. It is the "starting point for all other axioms" (META) Gamma-3<sup>1005b 33.</sup> And with this we come to the second sense of 'logically necessary'. But what is this? and what is the relation between the two? One generally accepted law of modal logic is that if 'p' is a truth of logic, 'p' is necessary. Thus the principle of contradiction can be considered necessary inasmuch as it is a logical truth. Similarly all other logical truths derivable from this (and other axioms) are also logically necessary. As such, employing our earlier convention that an axiom can be said to be derivable from itself, the ascription of 'logical necessity' to 'p' may seem to be no more than a clouded way of saying that 'p' is derivable from the axioms of logic. But if at the same time one believes that there are no alternative logics, then the statement that 'p' is logically necessary carries with it the important information that 'p' is (or is to be considered) categorically provable. Now, if we employ logic in our description of extra-logical entities, it follows that no logically acceptable description will run counter to these truths. Thus any logical truth may, roughly, be said in this way to be a principle in all things. But this feature, strictly speaking, is a characteristic of statements and not of things, and it is well to keep the two separate, only the former can be logically true, i.e. necessary in this sense.

To summarize. Inasmuch as logical truths, and particularly the law of contradiction, are considered to be principles in things, such



principles are considered as if naturally necessary. In contradistinction to this, if 'p' is a truth of logic, whether axiomatic or derivable, 'p' can be said to be logically necessary. The two uses of 'necessary' resemble each other. For if logic is unique, no logically acceptable description of things will run counter to the truths in logic, and by extension, one can then say that logical truths apply to all things.

But if one confuses this resemblance with an identify<sup>t?</sup>, it is possible to consider the same principle to be both in things, as an invariant predicate of them, and at the same time to be applicable to statements about them and about all things. Consequently, if one is under this confusion, it becomes natural to believe that a study of these latter, i.e. of logic, can in some way inform one about the characteristics of extra-logical objects. If however, we separate these two senses of necessity--natural and logical--there is no such link. We assume this separation. Thus we cannot expect any statement of a strictly logical necessity, in itself, to be informative about extra-logical objects. Since the classical approach assumes that there are necessary statements about extra-logical objects, and that these are informative, we need be concerned no further with merely logical necessity.

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#4. We shall also find reason to dispense with any study of the following possible use of 'necessity': iv: lexical necessity.

When a statement is lexically entailed by another (see Chapter IV-5) one might also say that the entailed is lexically necessary. This entailment, we remember must depend at least in part on the meaning of the extra-logical words contained within the entailing statement(s). If we were to be guided by the analogy between logical and lexical necessity, we might assume that the laws of the former were fully applicable to the latter. But as noted earlier this is not the case. The present instance suggests other reasons for this. For in

some ways the range of ascription of 'lexical necessity' is narrower than that of 'logical necessity' and in other ways it is broader. If for instance we were to assume that the same logical laws applied to both types of necessity, and were to say that the entailed was necessary, we might be forced to conclude that the entire entailment was also necessary.

For if this were not the case it would be possible for the entailed to be possibly false. But then it follows that whenever 'q' is necessary the conditional ' $p \supset q$ ' is also necessary---and this is true for any 'p'. This runs counter to ordinary usage. (We do not normally say: 'It is necessary if the moon is made of green cheese, then a is a bachelor only if a is unmarried'.) Thus 'lexical necessity' cannot be ascribed to each logically necessary statement. On the other hand we are ready to countenance the statement:

It is necessary that if a is an eligible bachelor, then a is handsome or witty or rich, etc.

For this latter follows from the extended meaning of 'eligible bachelor' in the context of its present use. But it certainly does not follow logically from the definitions of 'eligible' and 'bachelor'. In this way lexical truth depends upon more than logic. And again, there is another important difference between the two. Although we may be ready to consider the truths of logic as somehow necessary at all times, we cannot consider the lexical in the same manner. For instance it is conceivable in some grisly future that 'eligible bachelor' might denote merely a male whose genes were still fertile after successive radio-active bombardments. Such entailments, unlike those of logic, are all too liable to change.

Wherein then lies the necessity, if any, of lexical truths?

To answer this, let us first look at the notion of conceptually necessary

truths. We will find that the two are closely linked.

v: conceptual necessity. Let us say that a proposition is conceptually necessary if it appears in, or can be shown to follow logically from, the set of propositions which establish a full statement of a given concept. This definition may appear rather curious. It will take time to explain it, even briefly.

#5. There are many questions one can ask about concepts. For instance: Are concepts mental? Do they exist? Are they constructed? Are they public? etc. But for our present purposes let us inquire instead: What does one do with a concept, i.e. how is it used? And, as a first step (since only when one has grasped a concept can one use it) we shall ask: What does it mean to grasp a concept? Let us now consider this latter more closely.

When my son has grasped the concept of Sums, he is able to take the expression: 'Two plus three equals---' and (hopefully) complete it 'five', and if he takes two objects from one pile and three from another, on the basis of the same concept, he knows the objects will constitute a new heap of five. Similarly when an apprentice grasps the concept of his job, he is able in any given situation to know what sort of action is expected of him. Or when a tribesman grasps the Anglo-Saxon notion of justice, he is ready to say, for instance: 'According to Her Majesty's law, a man is not punished unless he is shown to be guilty'. Or when a classical physicist grasps the concepts of quantum mechanics he realizes among other things that he is not expected to study actions but interactions, not individuals but types of individuals.

And also when one has grasped these concepts, and is guided by

them, other types of behavior then becomes inappropriate. In the above situations, the child would not expect the heap to be empty. Nor should the workman lie down and say: 'I'm resting my eight hours until it's time to go home'. Nor should the tribesman say: 'Punish the first man you see'.

For once it is grasped, the child, the workman, the tribesman, have their respective concepts. And what distinguishes having a concept from not-having is that the concept user is able to perform certain actions, make certain judgments, express certain statements, etc. appropriately in a given situation. The having of a concept enables one to proceed regularly according to the particular patterns. It is as if were like a train's being put on the rails. Once there one can move in various directions along the lines established by the layout of the concept. And similarly, the layout excludes other moves which otherwise would be possible.

Thus it is, that once the concept is grasped, although there may be options open concerning the path to be taken, or the move to be made, or the procedure to be effected, the set of these options is in some way determined beforehand. At least these are roughly delimited, like those on a map which shows a network of trails (of which various ones might be taken at any time) and also indicates the likely position of others. In this way a concept is, or establishes a set of determinate procedures, actions, moves, expectations, judgments, assertions, etc. which hold or are appropriate in any given situation to which the concept is applied.

One note before proceeding. For the sake of illustration we have talked above, generally in terms of particular actions, moves, etc. But this should not lead us astray. For what is typical of concept-use --as opposed to rote-behavior-- is that it is not merely the instance which is grasped or understood. Rather one masters an abstract mechanism --and it is the mastery of this latter that permits one to apply the same concept to a wide variety of novel situations. It is, as it were, the grasping of knowledge of an entire network of which we have glimpsed or experienced only parts.

For instance it is in this way, when we have learnt a language, that we are able to recognize a novel sequence of sounds as a well-formed utterance of this language, however infinite the set of possible sentences might be:

This is the only assumption by which we can account for a speaker's impressive ability to use language creatively. Fluent speakers both produce and understand sentences that they have never previously encountered, and they can do this for indefinitely many such novel sentences... The creativity that exhibits itself in the production and comprehension of novel sentences is thus like the creativity exhibited when someone successfully multiplies two numbers that he has never multiplied or seen multiplied before. Both types of creativity are cases of rule-governed behavior in which rules that abstractly represent infinitely many possible constructions are used to produce one or another actual construction falling under them." Katz pp. 100-101.

Such a mechanism can be said to be instantiated whenever the concept is employed, much the way a schematic rule, e.g. of inference, is instanced in each particular use of the rule. Thus if we hold a Newtonian concept of force (in which force is considered equal to the product: mass X acceleration), if in a given situation a force has a particular value, say,  $K \cdot 10^{19}$  --to choose an arbitrary one-- we know that the product of mass X acceleration equals  $K \cdot 10^{19}$ , irrespective

of any experience we (or anyone else) may have ~~associated~~ with any of these particular values. In other words the abstract mechanism we can associate with the concept, establishes a set of statements which are so related, that given the first (e.g. 'Force equals  $n$ ') various other statements can be said to follow.

We can imagine propositions of the above kind associated with each concept. These might be expressed in the form of a compendious enumeration of all such possible statements, or recursively, or schematically, or otherwise. But the form of these does not concern us. If propositions, as above, establish a set of determinate relations between the description of the initial situation to which the concept is applied and the result of the ensuing application, we can say that they provide a description of the concept. If at the same time this abstract mechanism applies to each situation in which the concept may be employed, we can say that it establishes a full description of the concept.

Mark well, I am not saying that this is the concept. But I do claim that if we consider the concept in respect to all of its possible applications ~~(that)~~ this abstract structure can be mapped upon a concept. (Very much in the same way as a table of road distances can be associated with the actual stretches of space which it mentions) When we define 'conceptual necessity' in terms of a full description of a concept, this is all that we mean. The concept, as it were, authorizes the set of consequences of its applications.

Thus if we wish to say that a particular proposition is conceptually necessary, we mean either that it is a statement of a schema which establishes the above relationships, or is some instance of it.

In this way, we can say that it is conceptually necessary, within our normal notion of arithmetic, that  $x+0 = x$ , and  $0+0 = 0$ ,  $1+0 = 1$ ,  $2+0 = 2$ , etc. Similarly we can say in respect to our concept of justice that it is conceptually necessary that if a man has not been proven guilty, he is to be considered innocent, or if Senator Dodd has not been proven guilty of deliberate double-billing, that he is to be considered innocent, etc. Or again we can say it is conceptually necessary within the Copernicean world-view, if the sun appears to be sinking into the sea now, that this be described as an apparent motion of the sun. Or that it is conceptually necessary within a world view described in terms of a chain of being, that man's perfection and his essential nature, lie in his rationality.

And finally, we extend this use of 'conceptually necessary' so that where 'p' is conceptually necessary and 'q' follows logically from 'p', 'q' can also be said to be conceptually necessary.

#6. At this point one might ask: Is there any significant difference between conceptual and lexical necessity? For instance do not the rules of language sanction statements as lexically necessary in a manner similar to that established by the abstract mechanisms you have associated with concepts?

I am afraid this question cannot be answered in small compass and it would run us far afield to pursue it any length. But let us consider how it might be answered. This will further clarify what we mean by lexical necessity and, above all, show how the necessity of the lexical--where it is not trivial--depends upon the conceptual.

For the ascription of lexical necessity would indeed be trivial if it were restricted to definitional substitutions and logical

entailments of these. Given any definition, i.e. any expression of the form:

.....x..... = DEF  $F_x.G_x$ , appropriately quantified,

and the statement '....a....' it would follow then that a was F and a was G; a was F, a was G; and also (if the statement satisfies its own presuppositions) that there is an a. But all this follows logically-- and any mention of lexical necessity in such a case would be superfluous.

But we have expressly included more than the above within the scope of 'lexical entailments'. For instance we suggested that 'a is an eligible bachelor' entails not only material of the above kind, but also that a is handsome or witty or rich or agreeable, etc. And this latter depends on more than the defined meanings of 'eligible' and 'bachelor'.

One is tempted to say that this depends upon the connotation of the terms. But unfortunately neither 'connotation', nor 'intension', (nor the broader 'comprehension') are sufficiently clear for one to pin much hope upon them. Consider in this connection the following excerpt from the "Port Royal Logic":

The comprehension of an idea [or a term] is the constituent parts which make up the idea, none of which can be removed without destroying the idea. For example, the idea of a triangle is made up of the idea of having three sides, the idea of having three angles, and the idea of having angles whose sum is equal to two right angles, and so on". Arnauld (1) p. 51.

(For the interchangeability of 'idea' and 'term' in the above, see Kneale (1) p. 318)

But however interesting the above remarks may be, how far does 'and so on'



go? Until we can delimit the components, 'comprehension of 'triangle' remains vague. At what point, say, is a complex theorem about triangles in topology part of the comprehension of 'triangle'? And, on the other hand, why must the fact that the sum of the interior angles of a triangle equals two right angles be considered part of this comprehension? And again, does every fresh discovery add to the "comprehension" of a term, or only when I know it, or when everybody knows it? And what about actual triangles and our knowledge of them. How does this effect it?

'Submarine' for instance entered our language first as an adjective, pertaining to under-sea activities. Yet today from 'a is a submarine' we might infer that a may be armed with nuclear warheads or is in Holy Loch. And these are entailments which, with the exception of a Jules Verne would have been unthought of, perhaps even incomprehensible, in an earlier age. And we can also imagine how at some time in the language of naval strategists, these entailments were already part of their speech, but not of ours

Thus if we try to answer: Where does the content of 'and so on' stop in the above citation concerning the "comprehension" of a term, we can never be certain. For this seems to vary not only with the period but with the state of knowledge --of theory and of fact--of the particular users of the word. And this is a very slippery slope upon which to place necessity.

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In contradistinction to this, the concept--as we have discussed it--determines the set of its conceptual entailments. Further discoveries concerning the concept, however much they may modify our understanding do not alter the concept as it is established. The self-identity of a concept (provided the concept is self-consistent) is invulnerable to change in respect to any further knowledge one may have of it. For as

Arnauld observes, none of the parts of an idea can be removed "without destroying the idea". Such is certainly the case with concepts. Someone for instance might say about a conceptual entailment: That has nothing to do with my concept of F'. But if one can show him that the aspect he rejects does indeed follow, he cannot excise this consequence from his concept. He will either accept the new discovery, however unwillingly, or exchange his concept for another. There is a sort of bedrock here: one must either stand upon it or decide to change one's position.

Perhaps an interpretation along these lines imputes excessive rigidity to concepts. Perhaps in any but a formal system, even concepts can change a little, sway with the wind, without a complete loss of identity. But despite this reservation, I think my essential point is clear. In general we do not say the concept changes when we discover something else about it, any more than the geography of the Pacific Ocean is said to alter when it is seen for the first time. On the other hand, the extended meaning of a word and its patterns of entailment do change with usage and are revisable in response to fresh discoveries concerning its subject. For instance I suggested that 'a is an eligible bachelor' allows one to infer today that a is handsome or rich, etc. I also suggested that in some grisly world the above might entail only that a had sufficient genes; and in some Indian society in which everyone is betrothed before reaching puberty, the above proposition might entail that a was eight years old. In each case it is a change in the concept of marriage, or of mating, which alters the patterns of lexical entailment. For it is the particular concept which holds (in this case that of marriage) which provides the criteria for the ascription of 'eligible', under certain conditions.

to the name of some bachelor. And since there are different concepts, and different criteria to be established in different cultures, the propriety of the ascription together with the degree of warrant of statements lexically entailed by them, also varies. The extended meanings which words take on, depend upon the concepts with which they are associated, much as the color of a chameleon does to its surroundings. And thus it is that the patterns of conceptual entailment, in force at any time, provide the network for which the inference tickets of the associated language are issued.

For how could words, or rules for the use of words, in themselves sanction such inferences? We do not change our concepts because of the meaning of words, or in response to further knowledge of how they are used. (Except perhaps in the degenerate case in which a misuse of language has led one astray.) But we do alter and/or expand the meaning of our words and the rules governing their use, whenever the associated concept, or our knowledge of the concept, changes. Thus, within the conceptual scheme of the Age of Reason, where any kind of excess is considered to be a defect, one warranted entailment of 'a is enthusiastic' is 'It is to be lamented'. Yet the same sentence, containing the same lexical units, introduced into a contemporary conceptual scheme -- say that prevalent in a school of education -- would warrant the entailment: Great!'.  
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In terms of the above suggestion (and I regret that there is no space to pursue it further and in greater detail) we can now explain the puzzle about the limit of the comprehension of a term. A portion of the ever-changing body of knowledge one possesses about a concept, or which is part of the concept of some object, brushes off and becomes part of the

general stock of knowledge of the language-users. Depending upon the subject and the user, some portion of this, together with a knowledge of the content of the situations to which it is applied, becomes included in the comprehension of the term. In this way part of that which I understand about the subject of some word, 'w', becomes part of the extended meaning which 'w' has for me.

Some of this may be purely subjective. For instance, 'Grépon' (in French) means a particular type of mythological creature. In addition to this it is the name of a peak above Chamoinix. But to me it also means a place where I was nearly caught in an ice avalanche. All this is part of the meaning of 'Grépon' for me. And doubtlessly most words do have such a peripheral area of subjective (idiolective) content. But once language is employed and used publicly, these peripheral areas become unimportant. Depending upon the size of the group and its constitution, the words we use take on a group meaning which is roughly equivalent to the common intersection of each individual's uses. (We all know how in one group a word becomes a cue, illuminating a whole attitude of mind; and how in another all the inference-patterns, which seemed so evident in the former must be labored to make sense.) Thus the range of the comprehension or the extended sense of a term, as it is used, is a function of the user's (and the hearer's) knowledge both of the associated concept and the situations to which it is habitually applied --and varies more or less directly with it.

According to this view the extra-definitional entailments established by the rules of language depend in this way in part upon the conceptual patterns in force. I certainly do not wish to contend that language cannot also influence the development and the choice of concepts. But the only point I wish to make is that (with the exception of descriptive statements, which can be considered as enthymematic) the ultimate sanctions for the extended patterns

of lexical entailment found within language lie in the pattern of conceptual entailments established by the concepts in force at the same time.

If this is so, we need no longer consider the claims of lexical necessity in their own right. For, then they are based either on convention (as in lexical definitions) or on the conceptual.

Further, if this sanction did not depend upon the conceptual, wherein lies its alleged necessity? Certainly not in the physical alone, nor the logical, nor in definitional conventions. (For this latter would make this necessity trivial.) And as we have shown any recourse to a necessity in re depends too upon the conceptual. This too is to be ruled out. Looking elsewhere, one might try to anchor this necessity in a form of life, in the richer sense of a living activity in which dispositions and public attitudes are interfused in language-use. But I think attitudes and dispositions of this kind can in turn be mapped upon the same or similar abstract mechanisms as those associated with concepts. As far as the results which concern us, i.e. the ensuing statements, what is the difference between saying: My concept of justice <sup>establishes</sup> that in a given situation a man is not to be considered guilty unless proved so' from: We are disposed in a given situation, when a man has not been proved guilty to say: He is to be considered innocent'?

Thus, although we have admittedly given a large interpretation to 'conceptually necessary', it seems that any recourse to any other ground of lexical necessity is either inadequate, or can be shown to refer back to the conceptual.

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#7. Within the long preceding sections we have discussed five distinct applications of the term 'necessary'. These are in relation to i: natural (or physical) necessity, ii: necessity in re, iii: logical, iv: lexical, and v: conceptual necessity. Our analysis suggested that statements of natural necessity might be either theory-free, and as such pure descriptive statements, or theory-laden and so in part dependent upon the conceptual structure in terms of which they are expressed. Thus any claim to establish an ontology on the basis of natural necessity presupposes theory-free descriptive statements or conceptually necessary statements. We then argued, a propos of necessity in re, that the doctrine of essentialism upon which it is based is arbitrary, unless grounded in terms of a conceptual scheme that sanctions some particular choice of defining characteristics as unique and essential. Thus any assertion based upon necessity in re presupposes that one has already established the necessity of the conceptual order in terms of which it is grounded. As for the third use of necessity, i.e. in respect to logical truths, we pointed out that if one considers logic truly unique, then any logically acceptable statement, concerning anything whatsoever, cannot run counter to the rules of logic. We suggested if this observation is taken uncritically, it might be viewed as imputing logical necessity to/a principle in things. And if this were so, one might believe that a study of logic would yield information concerning the extra-logical. But this is to confuse a characteristic of statements with that which they describe. Thus any resort to this sense of logical necessity, as a positive principle in things, is unfounded, and any appeal to logical necessity to establish more than the form of an argument is inadmissible. We then argued that

any appeal to lexical necessity, if this were based merely upon the logical entailments of definitions, was trivial, inasmuch as definitions need be no more than conventions. (Or if based upon more than convention, then the arguments concerning in re applies.) On the other hand the patterns of lexical entailment, that we related to the extended meaning of terms extend beyond those of formal logic in many respects, and in other cases shy short. Although we avoided a full-scale discussion of this subject, as one leading too far afield, we argued for the thesis that it is chiefly the structure of the associated concepts that sanctions these patterns of lexical entailment. Thus again, an ascription of necessity depends upon a prior ascription of conceptual necessity. As for this latter we argued that in any application of a concept the relation between the situation to which the concept is applied, and the procedure, or judgment, or action, or statement, etc. which follows as the result of this application is determinate: that one can associate with each concept (at least abstractly) a set of statements or schemata which specify this relation; that any statement occurring in such a description of a concept, or logically entailed by it, could be said to be conceptually necessary in respect to this concept.

Thus by dint of devious analyses, we have separated out two types of propositions -- theory-free descriptive statements, and conceptually necessary ones. All others which might be used to establish the content of an ontology, must be based in some way on these. Accordingly, if the necessity of conceptual statements is inadequate, and if theory-free descriptions do not have the logical power to accomplish their task of establishing an ontology, no body of existence-statements is categorically

provable. And if this is so, the classical approach is untenable, at least, in respect to existence-statements.

#8. Let us then look more closely at the alleged claims of conceptual necessity. If our analysis up to the present is correct, the claim that 'p' is conceptually necessary can be explicated by saying that 'p' is part or consequence of a full description of a concept. But when we assert the conceptual necessity of 'p' in a categorical argument we must intend more than this. (We could not get very far if 'p' were conceptually necessary only in respect to, say, the concept of phlogiston, or in the theory of epicycles.) We must assert at least that the concept is in force, i.e. that it is accepted by the culture-bearers of the time. But if we made no stronger claim than this, this necessity might still be purely contingent. It would not be necessarily necessary that such a concept should be in force. Rather the claim one makes in any categorical proof employing 'p', is that the concept from which the necessity of 'p' springs is itself in one way or another always necessary. (As Geach alleges there must be such concepts without which rational discourse would be impossible.) Our analysis narrows down then to this one point: In what way can we claim that the network of relations established by a concept is necessarily necessary; i.e. that in some fundamental and bedrock way it is not possible for the concept to be otherwise?

To scotch a facile answer to this query, let us note that the whole question of reiterated modalities (as in 'necessarily necessary') is a trouble spot in modal logic. Some logicians would ban any such reiteration. I have shown, in the example of traffic laws, and above in respect to concepts, that 'necessary' or 'necessarily' can be legitimately applied



to statements describing something else as necessary. Thus, reiteration has its sanction in ordinary language, even if (as for instance Von Wright claims in his "Interpretations of Modal Logic" p.77) our logical intuitions cannot decide the form of reiteration which is the natural one. He refers, in this case to the question whether 'p' is necessary' entails or is logically equivalent to 'It is necessary that 'p' is necessary'. Were this latter entailment the case, there would of course be no problem here for us. Any statement of conceptual necessity if the same modal laws applied, would then be necessarily necessary. But this equivalence is far from clear, and it is clearly counter-intuitive in respect to many concepts. So let us -- following Lewis (1) page 501 --take up a stricter formulation, in which this equivalence is not automatically the case. Thus the problem for the advocates of the classical approach is to prove that there are necessarily necessary conceptual statements. And to show this demands more than mere logical manipulation of ' $\Box$ ' and ' $\Box\Box$ '.

## CHAPTER SEVEN

### Categorical Proof and Disproof -I

#1. Before proceeding, let us recall the course of our argument. Within Chapter Five we have shown that some ontologies may be refutable: the offending positions are either self-inconsistent or incompatible with what seem to be incontrovertible truths. If we assume that the prerequisites of logical proof are invariant, a logically conclusive refutation of this kind is indeed categorical.

But, we observed, ontologies are seldom expressed in a form sufficiently definite to permit conclusive refutation in this way. For when an ontology is shown to be indefensible as stated, a new position not substantially different from the faulty one, but apparently free of contradiction, can generally be established. Strictly speaking the initial position has been refuted and a new ontology established. However, it is generally only through discussion that an actual position becomes clarified and so the modifications a philosopher introduces to accommodate a theory to destructive criticism, may then be considered really part of the ontology after all. Thus an actual ontology may be refuted without one's knowledge, and may survive to tell the tale.

These remarks apply with equal force when an ontology is shown to be incompatible with accepted truths (whether these be conceptual or descriptive). In the absence of a definite terminology, and a canonical listing of such "truths", a philosopher can generally modify elements either within or without his system and so again turn the edge of a putative refutation.

These observations were not meant to imply that argument of this type is in vain. Rather, we pointed out a successful refutation serves to demonstrate that a particular totality of statements, i.e. those of the ontology + the body of accepted truths, is self-inconsistent. Within a context of accepted truths, refutation stakes out the terrain upon which a contradiction-free position cannot be established. Like markers left upon a mine field, it can be a matter of extreme import.

Our next step was (and now is) to ask whether a logically possible ontology can be refuted. By 'logically possible' we mean 'self-consistent'. And further we assume that such an ontology is expressed in a language sufficiently free of vagueness and ambiguity for its sentences to provide a unique interpretation; for any proposition of the form "...x...exists...", within this ontology, there is no question concerning either the interpretation or the intended truth value. Within such an ontology there is neither the slack nor patch-work that one might encounter in an actual theory. Further, we specify that it is merely self-consistent, i.e. it is not logically necessary and as such uninformative.

We then noted that, as far as the classical approach is concerned, any proposition employed in such a refutation would have to be "necessary". Explicitly stated by Aristotle, we have suggested that this is also presupposed by any adherent of this approach. For otherwise no conclusion could be unconditional.

To cast our net as wide as possible, we investigated various senses of 'necessity'. Two types of statements, theory-free descriptions and conceptually necessary propositions were singled out as irreducible components (singly or together) underlying any ascription of necessity

which might interest us.

It is time now to investigate the latter.

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#2. Statements may be said to be conceptually necessary, if they are contained in (or follow from) a description of a concept

- a) in force at some particular time; or
- b) in force at all times, or when
- c) (in respect to this world, or universe) it is impossible for the concept to be otherwise, or
- d) (in respect to any universe accessible to a human intelligence) it is impossible for the concept to be otherwise; or
- e) (in respect to any universe accessible to any intelligence, human or other) it is impossible for the concept to be otherwise.

Fortunately we need at most, discuss only the first three. For any assertion of necessity in respect to the last, could only be established in terms accessible to a human understanding. And d) in turn is irrelevant to our earth-bound study of existence-statements. Further, let us note that in the assertion 'it is impossible for the concept to be otherwise', as in c-e, this impossibility cannot be merely logical. For (if we are correct) the statement "'p' is logically necessary' is equivalent to "'p' is categorically derivable from the axioms of logic.' Thus to reiterate 'it is logically necessary that 'p' be logically necessary' means no more than that the derivability of 'p' is itself derivable. And this meta-statement --as far as existence-prepositions is concerned-- is no more informative than any first-order logical truth.

In both b) and c), the ascription of necessity is not restricted in respect to a particular time as in a). However b) applies to actual sets of concepts which are or have been in force within our universe; c) applies to any possible ones. The former may occur by accident; for the latter, this is impossible. Let us call them (respectively) 'diachronic'; and 'time-free' or 'timeless'.

Now in the following we shall not be interested in whether or not there are such "necessary" statements to serve in a refutation (or defense) of a self-consistent ontology. Our intention is to show merely that any introduction of them into an argument is inconclusive: either 1) their purported self-evident necessity is lacking, or 2) any claim to unconditionally demonstrate this necessity is unfounded.

Let us look first at the stronger claims of c). These concern a time-free necessity. We will then work back to the diachronic assertion of necessity as in b), and then to time-bound assertions, as in a).

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#3. A statement might be alleged to be necessary in all possible conceptual schemes that one might establish within our universe. (By 'conceptual scheme' I mean a totality of concepts, together with the provisions governing their application, which are in force for a given time, and are held by all or some of the culture-bearers of the period; in other words, I refer to that body of statements and procedures, which the bearers of the conceptual scheme are ready to accept as true and correct, as a description of their concepts, the manner in which these concepts are to be applied, and the intra-conceptual consequences of these applications.)

I should like to show now that even if there were such propositions (true in all the possible conceptual schemes one might establish within our universe), the time-free generality of these truths could never be shown categorically. We recall, that the conceptual statements which concern us are not truths of logic. Thus they could not be shown to follow categorically from other premises, unless these premises themselves were categorically provable, or incontrovertibly true in some other manner. The former possibility introduce a vicious regress.

Now can the premises be incontrovertibly true in some other manner? By hypothesis they are not truths of logic. Thus their truth could not be demonstrated merely in terms of themselves. (For if 'p' is merely logically possible, the conclusion that 'p' is true cannot be established without the introduction of an additional premise. Similarly an argument based on a reductio of 'not-p' to absurdity, would also demand a supplementary premise.) If an additional premise were available and this was a conceptual statement, we introduce another regress. For this would have to be <sup>true or</sup> proven true, in the same manner. But the additional premise cannot be logical, for this would still be insufficient. By our earlier argument, the premise could not be lexical, for its assertion in turn depends upon the necessity of the conceptual, and it is this latter which we are to prove. Thus, if the argument of chapter VI-7 is correct, the additional premise must be a theory-free description.

And this is not an unnatural conclusion. For we expect any possible conceptual scheme to conform to what Wittgenstein calls "general facts of nature" (INV) note. p. 56. But is it possible to establish any such general facts about the universe in a theory-free manner? For

instance one such general "fact" might be that we can repeat measurements of the same objects and (under many circumstances) the measurements will be the same. But if we did not have the concepts of Regularity and of Quantity how could this "fact" be known? And even then; the successful application of these concepts demands a sophisticated understanding of what is measureable, of what is to be excluded, and of the circumstances appropriate for the measurement to be significant. Thus this general "fact of nature" might well be unascertainable without the apposite conceptual structure. And certainly one cannot assert that these particular concepts and procedures must be part of all possible conceptual schemes.

There may be incontrovertible theory-free descriptions, for example: 'I see this as yellow', but it is a far cry from an uncontested description in a phenomenal language to a proposition about a general fact of nature. (We discuss this further in XI-14.)

Thus it appears that any additional descriptive premise of sufficient power to accomplish the purpose of proving 'p' must itself depend upon the conceptual structure which enables the observation it reports. And this again would beg the question.

The only other incontrovertible manner of asserting the truth of 'p' must then lie in 'p' itself. In this case one could not rely upon intuition. For how could one possibly assert: 'I know without the shadow of doubt that 'p' not only appears in the statement of a concept in force today, but it must appear in the description of any possible conceptual scheme?' For, it seems, the only source of this 'must' arises either in an intuitive certainty--which I for one fail to attain--or it is impossible that 'not-p'.

But if it is allegedly impossible for 'not-p' to hold in any possible set of concepts, our problem reappears. How does one know this? (Unless of course 'not-p' is logically impossible. But then 'p' would be logically necessary, and this contradicts our hypothesis.)

Thus, under the conditions we have assumed, it is impossible to show categorically that some statement of a conceptual relation must be true (or correct) in all possible conceptual schemes which one might establish within the universe. Nor can one claim that this statement is incontrovertibly true (or correct) in itself, independent of any demonstration. For neither assertion can be grounded. (Among the conditions we have assumed is that the statement is self-consistent but not logically necessary, and that the normal conditions of logical proof and disproof apply to it. And presumably we include within these latter the presupposition that the universe to which they are to apply is non-empty.)

Accordingly one cannot ground any refutation of an ontology in terms of a statement or statements which can be said to be timelessly necessary.

#4. One might try to turn this argument against me by asking +- since I have introduced a theory of concepts+-should this theory then not be applicable to all possible conceptual scheme? For instance the conclusion of the above argument?..in answering this it would be well to distinguish the level of reference. We started with a statement, 'p', in a conceptual scheme which we shall call  $C_1$ . The claim was made that this statement was true in all possible conceptual schemes, schemes which we shall call  $C_1, C_2 \dots C_n, \dots$  (without specifying the finitude



or infinitude of the sequence). But let us stress that 'p' is in a scheme, not about it. But the statement "p' is true or correct in all possible schemes' is about a class of schemes, i.e.  $\{C_1, C_2, \dots, C_n, \dots\}$ . Let us say this latter statement is in a conceptual scheme,  $CS_1$ , which talks about  $\{C_1, C_2, \dots, C_n, \dots\}$ . Now we have argued (in terms of  $CS_1$ ) that the statement "p' is true or correct, etc.' is not provable. And this is an observation made in a particular conceptual scheme -- one in which we assume the normal notions of proof and disproof, together with the material we have employed in our theory of concepts. We are fully ready to conceive that there may be a conceptual scheme about concepts and proof,  $CS_2$ , which is different from ours, and from which other conclusions follow. We claim no categoricity for any discussion. But we do trust that our assumptions are roughly equivalent to those made by advocates of the position we are criticizing -- and our purpose is to show, given certain assumptions, that we can or cannot assert various consequences.

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#5. The belief in the necessity of necessary statements is deeply ingrained. I am tempted to say it is part of the philosopher's callous. And thus another objection might be voiced: You have omitted the possibility that there are self-validating statements. These would be neither intuitively evident--at least not in the sense of an immediate intuition--nor logically necessary, but nevertheless their truth would be undeniable after proper reflection.\*

This is certainly a point well taken--and we shall ignore it for the present. For we remarked earlier that if some claim is not true in a weaker form, it is not true in a stronger form. If e.g. we can show that there are no self-validating statements in terms of actual concepts, then we need not show that there are none in terms of any possible concepts. This we shall do later. So let us postpone an answer to this objection until we discuss the claim that some <sup>statements</sup> conceptually necessary/hold in all actual conceptual schemes, past and present.

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#6. We have in the preceding sections examined the assertability of any <sup>e</sup>ascription of a <sup>k</sup>timeless conceptual necessity. Whether or not an actual philosopher may have asserted this, we have deemed this claim worth investigating. For it is only such a proposition which can be said to be necessary in the intuitive sense of 'impossible to be otherwise'. The ascription of diachronic conceptual necessity, to which we now turn, is after all contingent. At best one can assert that certain conceptual features have remained constant in our intellectual history and pre-history. This is what Strawson appears to affirm when he writes:

For there is a massive central core of human thinking which has no history--or none recorded in histories of thought; there are categories and concepts which, in their most fundamental character, change not at all. Obviously these are not the specialities of the most refined thinking. They are the commonplaces of the least refined thinking; and are yet the indispensable core of the conceptual

equipment of the most sophisticated human beings' Strawson (2)

p. 10.

Thus, if Strawson is correct, some portion of all (or nearly all) our conceptual schemes is invariant in respect to changes in time. If this is so, a statement, 'p', contained within this core would be true in all conceptual schemes, and 'p' might then be used either to refute or ground an ontology categorically. But what, precisely, is it that is inalterable in this way? In answering this question, we may distinguish between a weaker and a stronger interpretation of the above quotation. (I do not think that either corresponds exactly to Strawson's position, but an analysis of these will nevertheless prove helpful.) We will show that in terms of either interpretation--if there are such 'p's--they cannot be used to categorically establish an ontology.

Let us first consider the weaker of the two.

a.) Within this view, the human mind may be said to contain a set of basic conceptual equipment. For example some element within this set might be used to establish the distinction between thing and property, another might be concerned with the ordering of data into temporal sequences, and another with the selection of isolable and enduring particulars, or with the appraisal of values, etc. In other words, this equipment provides for the most fundamental operations which the mind can apply to the stream of data which assails it. It is these which enable it to establish the most all-pervasive of its distinctions, relations, selections, etc...All or some of the above may be employed in any given conceptual scheme; and that which gives specific character to any one scheme is the choice established within the scheme (in respect to the

myriad discernibles of experience, as to that which is to be considered thing-like, or property-like, or susceptible to temporal ordering, or valuable, etc. Although the basic selections, distinctions, etc. appear in all schemes, each specific conceptual order, as it were, employs these to cut along different lines. For instance (assuming for the sake of illustration that the task of one of these is to isolate certain items and types as thing-like) the weaker interpretation would claim that the specific items which are to be considered things vary from scheme to scheme. This interpretation might point out, e.g. how within Plato's "Republic" certain entities -- intelligible, incorporeal Forms -- are selected as the ontologically fundamental items, and how in contrast to this Aristotle (particularly in the "Categories") presents a particular man, a particular animal as paradigms of things. Thus in both cases the form of the distinction is the same but not its content.

Given this weaker interpretation, one could establish a meta-statement about conceptual operations to the effect, say:

(A) The selection of things as reidentifiable particulars is established in all known conceptual schemes, but the set of elements which are so selected varies from scheme to scheme.

But a statement of this sort, even if it could be shown to be true, cannot in itself be used either to refute or to ground an ontology. For the most one could claim, on the basis of (A), is that in all known conceptual schemes the mind does select items as thing-like. But such an observation does not permit the inference: 'Therefore things exist'. For example, classical mechanics studies the properties of absolutely rigid

bodies. Yet no one concludes that rigid bodies must exist, because they are selected within a given theoretical scheme. Similarly (A), in itself -- in contrast to the ontological claim that things must exist--says nothing directly about the constitution of the world. The fact that the universe can be viewed as containing things, or described in terms of a thing-language, does not imply that the universe contains things

Admittedly one might try to supplement (A) with an additional premise and then proceed to establish a proof that things exist. But what sort of proposition would be requisite? What is needed is something to the effect that whenever thing-words are successfully used -- as one might try to argue is the case in the languages of all known conceptual schemes -- that the things exist to which these words denote or describe. In this way from 'a is distinguished as thing-like' one could then infer 'The thing, a, exists'. From this it would follow analytically that things existed. But, unfortunately, any additional propositions of this sort can be said to be unequivocally true or correct only within the conceptual scheme of strong realism. Thus (A) cannot be used to either infer that things exist, nor to deny this in all conceptual schemes. And this it must do if the ontological assertions based upon it are to be categorical.

If (A) fails in this way, let us consider the stronger interpretation:

b) Within this view, the human mind is again said to contain a set of basic conceptual equipment. But here, in contrast to the earlier formulation, some of the entities to which these concepts are applied are considered to be the same in all actual schemes. Thus one might assert, say, the following strong meta-statement in b):

(B) The selection of things as reidentifiable particulars is established in all actual conceptual schemes, and within each scheme material objects are members of the set of elements so selected

But again one could not conclude on the basis of (B) alone that material bodies existed. As above such an ontological claim might be demonstrated-- but only in respect to those conceptual schemes in which the additional premise concerning thing-words holds. But since the warrantability of this proposition varies from scheme to scheme, proof again could not be categorical.

#7. Strictly speaking this is all that we need show in our analysis of the alleged necessity of any existence-claims based upon (A) or (B). However, one might still argue that if statements such as (A) or (B) (or any others which might combine features of both) could be shown to be true, have we not at least pointed out the way the mind must work in any discussion of what is the case? And would this not contribute some important general information in respect to the expression of any known ontology? Perhaps. For were there such a massive core of conceptual features which remained constant throughout all changes in all actual conceptual schemes, a statement describing this would still be logically contingent. (It would be logically possible for it to be otherwise.) But even then, with all man's intellectual experience to back it, a statement of conceptual necessity of this kind indeed provides an appreciable weight of evidence in favor of the truth of 'p'. But we shall argue now that (A) or (B) etc. cannot be asserted

categorically, but only in relation to particular conceptual schemes.

At first blush one would expect diachronic observations such as (A) or (B) etc. to be established empirically. And, if these were warranted by the evidence, one might accept them as inductive generalizations. There are of course enormous practical difficulties present in any such investigation. And perhaps there is even an objection in principle. For in the study of many dead languages we might at most assert that thing-words appeared. We could not infer that the conceptual scheme associated with this language distinguished things. A negative instance of this difficulty is provided by the claims of cultural relativism. Whorf, for instance, has argued since the Navaho language does not have the tense structures of Indo-European languages, that the Navaho do not have our concept of time. Yet one might reply, in opposition to this thesis, that the Navaho's express the same concept in a different linguistic form. It is conceivable, since there are still Navaho about whose extra-linguistic performances can be studied, that this question can be answered. But short of descending to Hades, I cannot see how any such empirical investigation might be performed to determine the exact structure of the conceptual distinctions held by members of the vast number of actual cultures of which we have only rudimentary intellectual remains.

Strawson, as we know, has wisely eschewed this path. After all the philosophic technique is that of rational argument. But, unless I am mistaken, in avoiding the empirical this way he has sailed close to an intellectual Charybdis. For if his argument purports to reach categorical conclusions concerning all conceptual schemes, I am afraid its technique

is as inapplicable here as the procedures of the early Greek cartographers who believed they could draw a map of the earth in terms of logical constructions. But perhaps I have mistaken the strength of Strawson's claim within the initial citation which has prompted this discussion. For within the same introduction he writes:

This book is, in part, and in a modest way, an essay in descriptive metaphysics. Only in a modest way -- for though some of the themes discussed are sufficiently general, the discussion is undertaken from a certain limited viewpoint and is by no means comprehensive" Strawson (2) p. 11. Italics mine.

Thus it might be ill-advised to consider Strawson's position at all in this respect. (For our purpose is to analyze the grounds for the assertion that (A) or (B) etc. is true in all known schemes.) Then let us discuss the work of the philosopher, Charybdis, who without the modest disclaimer which Strawson adds, makes the categorical claim that there is an unchanging core, etc. If I understand Charybdis correctly, he wishes to maintain, as in (B), that there are certain specific and unchanging features of our conceptual equipment, and it is these that man has (nearly) always employed. The task of what Charybdis calls 'descriptive' metaphysics is to describe these. Any deviation from these is revisionary. In this our philosopher echoes Strawson who has said:

Certainly, concepts do change, and not only, though mainly, on the specialist periphery; and even specialist changes react on ordinary thinking. Certainly, too, metaphysics has been largely concerned with such changes" Strawson (2) p. 10.

In this latter respect both Strawson and Charybdis allow, as (B) does not,



for variations in the form of our conceptual equipment. (Although both philosophers agree that the application of these terms -- 'descriptive', 'revisionary' -- to actual philosophers is perhaps never fully clear-cut, Aristotle and Kant, in general, can be said to describe the unchanging features in their investigations; Plato and Descartes, Leibniz and Berkeley, on the other hand, revise.)

Now on what basis can a claim such as Charybdis' be made that certain features are (or must be) typical of nearly all actual conceptual schemes? As we have noted such a claim is not grounded in terms of a diachronistic analysis of known schemes, but is based upon rational analysis. Any investigation of this latter kind bears this peculiar feature: it is a study performed in a conceptual scheme, and it is about conceptual schemes. Since I assume the only rational analysis one can successfully perform is in terms of one's current conceptual scheme -- however one may or may not modify it in the process -- both Strawson's and Charybdis' investigations must be conducted in terms of our contemporary scheme of concepts. Let us call this scheme 'CS-1'. Strawson, of course, is fully aware of this condition, for he talks about "our scheme of things" as having certain features, and of other beliefs being in "consonance with the conceptual scheme which we operate" Strawson (2) p. 246-7.

But Charybdis ignores this, and asserts the categorical truth of his position. This is a mistake: for whatever conclusions he may establish hold only because they follow from those beliefs, doctrines, tenets, conceptual and linguistic entailments, etc. which are sanctioned within CS-1. To show this, let us be generous towards Charybdis. Let us assume, with the exception of the above claim of categoricity, that he is correct in all

his conclusions that follow in CS-1. Let us assume further that whatever statements or assumptions he makes about the world are either theory-free and true, or when reduced to their components, that these too are true. And let us assume that on the basis of the above he is able to infer that there is indeed an unchanging core, etc. Let us call this conclusion, 'P'. But what has been proved?

Certainly 'P' is not and cannot be categorical, i.e. 'P' is not an unconditional conclusion. For, by hypothesis, 'P' follows from the statement of the beliefs, etc. of CS-1. Thus if we consider our present conceptual scheme to be described (hopefully) in a set of mutually consistent statements, some of which Charybdis employs, and to these we add whatever theory-free descriptions might be necessary, the argument Charybdis employs will be of the form: some conceptual statements of CS-1 and some theory-free descriptive statements imply P. In other words the conclusion that P is the case is conditional to the subset of statements which Charybdis employs.

#8. Now, although I believe that Strawson is content with this conditionality, Charybdis asserts more: his conclusion hold is supposed to hold in some objective way. Is there any way to remove this conditionality and show that our philosopher is indeed correct? Unless I am mistaken there are only three possible ways. 1) One can enumerate all schemes and show that 'P' follows from each, in the Aristotelean sense of induction; 2) one can establish some ordering relation among these schemes in such a way that 'P' is proved generally true by mathematical induction; or 3) CS-1 can be shown to be typical of any actual conceptual scheme, or basic in some other way.

We cannot come to the defense of Charybdis in terms of 1). For the practical, if not the theoretical difficulties, are insurmountable. The second has certainly never been attempted. And, further, on what basis could one establish an order among conceptual schemes which would permit mathematical induction? As for the third, on what grounds could one possibly claim that our conceptual scheme or at least that part of it assumed within the argument was typical of all others?

The only recourse is, in some way, to show that CS-1 is basic. But I think there are fatal difficulties even here. We have already alluded to the extraordinary variations which do occur within the few schemes of which we have only partial knowledge. Let us now mention one further difficulty: Why is the view of Aristotle and Kant said to be descriptive, and Descartes' revisionary? I think Strawson's answer is that if we rethink the former's thoughts, in our terms, we can reach conclusions consonant with them; we can as it were rediscover the same metaphysical truths. Thus, I think, Strawson could maintain that Aristotle and Kant describe conceptual features of the broadest generality which are analogous to those which we might describe, and that Plato, Descartes, etc. working with a conceptual scheme different from our own, can be said to modify or revise that conceptual structure common to us, to Aristotle, Kant, and others. But Charybdis, as we know, advances the much stronger claim that the positions of Aristotle and Kant are not only basic in respect to us, but somehow that these provide the bedrock of conceptual structures upon which all -- even those who revise -- must build.

For instance Strawson perhaps can call Descartes revisionary. After all Descartes introduces the conceptually difficult notion of <sup>a</sup>two-

substance man, one in which 'I' may have two distinct types of referents. And this runs counter not only to our ordinary usage, but to Kant for whom there is a synthetic unity of apprehension, and to Aristotle for whom a man is definitely a 'this' and not a 'these'. But Charybdis is misled when he believes that this somehow makes Descartes revisionary, as it were, simpliciter. Descartes' choices just run counter to some of the metaphysical options we have taken. But conversely ours and some of Aristotle's and Kant's run counter to those of Descartes and Plato, etc. If, for instance, anyone has taught a history of religion, it is impossible for one to be unimpressed with the near ubiquity of man's belief in the existence of <sup>some</sup> spiritual entity or substance and of its generally transient cohabitation or passage in living bodies. For instance:

'Bring me the salt you put into the water last night.' Svetaketu looked into the water, but could not find it, for it had dissolved. His father then said: 'Taste the water...How is it?' 'It is salt.' 'Look for the salt again and come again to me.' The son did so, saying: 'I cannot see the salt. I only see water.' His father then said: 'In the same way, O my son, you cannot see the spirit...An invisible and subtle essence is the Spirit of the whole universe. That is Reality...Thou are that.' Chandogya 6. 12-14

If we remember that Descartes within the "Discours" employs 'me', 'esprit', and 'moi', each to refer to the same subject, it would seem that his view of the universe and of man as constituted out of Body and Mind (Spirit) -- however the details may vary -- is the accepted viewpoint of the overwhelming bulk of mankind. On what basis can Charybdis call Descartes revisionary, except that his view differs from our own? And this, of course, is a provincial use of language.

Or again, consider the manner in which the concept of Being, of That-which-is, has varied. There is, for instance, good reason to interpret the sense of the term of 'is' (or 'being') that is most important to the Pre-Socratics and to Plato, as 'that which is always the same and never changing'. (I have this on authority of Mr. A.H. Coxon of the University of Edinburgh.)

And yet by the time of Aristotle, the philosophically interesting senses of 'is' and 'be', seem to have varied considerably. For Aristotle singles out all of the following: being of accidental properties, being of predication, being of truth, being of that which is potential, and being of that which is actual. (META) Delta-7. It seems as if the associated concept is established upon another plane. But perhaps this observation is unfair. For, referring to the above in a latter work, Aristotle remarks:

While 'being' has all these senses, obviously that which 'is' primarily is the 'what', which indicates the substance of the thing. For...when we say what it is, we do not say 'white' or 'hot'...but 'a man' or 'a god'" (META) Z-1 1028a 13.

In this last sense, Aristotle's use of 'is' and 'being' might be viewed as similar to that of his predecessors. But let us recall, as Ross points out: The primacy of individual substance is one of the most fixed points of Aristotle's thought -- the point at which he most clearly diverges from Plato's doctrine" Ross (1) p. 24. And certainly one cannot say of a man or even of most gods that they are always the same and never changing. Thus there is not only a fundamental conceptual divergence here between Aristotle and Plato, but between Aristotle and most of his predecessors.

One might try to discount the evidence for the awkwardness of

the ascription of 'descriptive' to Aristotle and 'revisionary' to his predecessors by claiming that philosophers from Thales through Plato revised the common core which goes back to prehistory and Aristotle put it back on the right track; or that Aristotle's predecessors really started in a thing-oriented world as we know it today and revised it in the process of philosophizing. But this is mere opinion. Charybdis can assert this only because he is so convinced of the fundamental correctness of his own position.

This defense becomes even more awkward when we see that another typical descriptive metaphysician, i.e. Kant, is also guilty of the same "revision" when he writes:

In all changes of appearances the substance remains, and its quantum in nature neither increases nor decreases" Kant (3) 16,B 225.

For certainly it is not the substance of an individual man that neither increases nor decreases. Charybdis might again claim that Kant, in this respect, was a revisionary metaphysician. But this then introduces another strained use of the term. For Kant is merely echoing the general belief in the laws of conservation of his time--and the distinction upon which they are based have a long and distinguished history which may reach back as far as Anaximander.

By this time, I think, it is obvious that Charybdis' ascription of 'descriptive' to some metaphysics and 'revisionary' to others is unhappy. But if this is so, he cannot assert that the scheme of concepts with which we operate are in some objective way, basic. Thus any categorical claim he may advance is indefensible; for we have exhausted the

possibilities of removing their conditionality.

Strawson, as I interpret him, is far more modest:

There seems no doubt that these things of which I have tried to give a rational account are, in a sense, beliefs, and stubbornly held ones, of many people at a primitive level of reflection, and of some philosophers at a more sophisticated level of reflection; though many philosophers, at perhaps still more sophisticated level, have rejected, or seemed to reject, them. It is difficult to see how such beliefs could be argued for except by showing their consonance with the conceptual scheme which we operate, by showing how they reflect the structure of that scheme"

Strawson (2) p. 247. Italics mine.

For, on the basis of this, one can only conclude that such beliefs are held as true, and can be said to be necessary, within certain conceptual schemes -- and at the same time to consider other schemes in which such statements are not considered to be true, as somehow outside the massive unchanging core. Thus Charybdis' claim concerning the invariance of certain conceptual features collapses into the much weaker one: We can say that certain of these features do not change -- if we do not consider those which do, or classify these latter as revisionary. And this is far from a trivial conclusion. However it can be asserted only in respect to that conceptual structure which provides the criteria in terms of which this selection is to be established. Thus we cannot argue categorically, from within a conceptual scheme, that certain features are invariantly present in all known schemes -- except in relation to the presupposed correctness of typicalness of our own scheme. Thus again,

there can be no ascription of conceptual necessity, simpliciter.

We conclude then, that any statement concerning the invariance of some statement through all or most conceptual schemes, whether this claim be true or not, cannot be categorically shown. And thus such a statement cannot be employed either to refute or establish an ontology categorically.

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#9. Before proceeding, I should like to say that I am inclined to agree with Strawson concerning the unchanging core. But I do believe that if this basic conceptual equipment were fully analyzed, the description of any component would be copiously supplied with parameters with which to accommodate it to the extraordinary variety of material present in (and formed by) different conceptual schemes. That is to say, I think such a description would be expressed in the form of a very general schema which took on the recognizable features of particular conceptual structures only when instantiated in given schemes. It is in fact, a schema of this type, which we do employ in defining 'exist'. Thus I would say, on the basis of the assumption we make, that it is less a core than a highly abstract structure that remains constant.



## CHAPTER EIGHT

### Categorical Proof and Disproof -- II

#1. We continue without discussion of possible forms of conceptual necessity. A weaker claim might characterize as necessary-at-a-given-time any statement entailed by a concept which is in force at the given time. The ascription of necessity in this sense is clearly time-bound. And this puts necessity on a slippery slope. For (as in the argument of Findlay concerning the non-existence of God) it countenances the possibility that any statement which is said to be necessary today, may at another time be said not to be necessary. (In this respect, such a necessity is like the purity of those temple-priestesses, who -- whatever the nature of their past or future liaisons -- are considered to be virgins for the year of their service.) This makes any argument, employing such a statement as premise, a peculiar type of conditional proof -- a hypothetical deduction, which happens also to be categorically true for the time the concepts hold, upon which the premises are based. The ascription of necessity in this manner becomes the least incontrovertible of all. For although the defender of a threatened ontology might find it difficult to evade the force of: 'The proposition, 'p', has been considered necessary at all times, and with what right is it now to be denied?', when faced with a statement whose necessity is still unbarred, he can answer blithely: 'Why not?'

There is, however, one possible escape from this embarrassment: one might attempt to show that the set of concepts one holds is in some way superior to any other. But even this "superiority" must be

measured in terms of some set of values. And thus we would have to show that these values were superior. But how could this be done except in terms of some other values established within our scheme? Thus any recourse to statements necessary in this way, as components of a superior scheme, remains scheme-bound. (We consider this further in IX-3.)

The strength of such an ascription of necessity-at-a-particular-time is further undermined if one considers the possibility of establishing necessity by convention. Given sufficient imagination, and a good press, presumably one could construct a reasonably consistent concept, and, if this concept caught on, one would be justified in claiming that the entailments authorized by it were necessary. (Faced with this ineluctable erosion of the force of 'necessary' one might gaze back to the halcyon days when necessity was considered to be a property of things. But, as we have pointed out, the assertion of such a necessity also depends in an essential way upon the conceptual.)

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#2. We have exhausted the possible types of ascriptions of necessity to conceptual statements. The analysis of each of these has shown that we cannot ascribe an unconditional necessity to any extra-logical conceptual premise employed within any proof. The force of this conclusion is independent of any answer to the question of whether or not there are such necessarily necessary truths. For our analysis depends upon, and is conditional to the notions of proof which we have, and does not depend upon the specific features of the particular statements one might introduce. If logic is unique and the assumptions we have made (concerning proof and the non-informativeness of logical truths, etc.) are warranted by such a uniqueness, we might then even claim a certain categoricity for the truth of our conclusion. But, in contrast to the proponents of the classical approach, we need not

presuppose the unconditionality of our argument. We are content to claim, in terms of the assumptions we have made tacitly and explicitly, that where our premises are in force, the classical position is untenable. And whether or not our logic is truly unique and our notions of proof inalterable or not, it seems that these, among all our concepts are most resistant to change. So the conditionality of our argument has this virtue: we can expect that it can be shown to hold in a wide band of schemes, and in particular within those to which the classical approach putatively applies. To be consistent, we cannot expect more than this. For in view of the above, the most one can claim <sup>respect to the acceptability of</sup> in any conceptual premise is that certain features of certain concepts tend to remain unchanged through a certain stretch of time, or that these concepts tend to include features of other concepts which they supplant or precede. To the extent that this can be shown to apply to a particular concept, one may be justified in claiming that certain statements contained in a full description of this concept are considered as necessary within the span of time in which the concept is an ingredient in the accepted conceptual schemes. Thus although we make no claims for the unconditional truth of our conclusions, we argue that they do apply wherever the classical approach purports to apply. And this is all that must be shown.

In contrast to this, the advocate of the classical approach tries to make the stronger claim that some extra-logical conceptual statements are necessary in all schemes. (If this argument were accepted, and such premises introduced into a disproof of a threatened ontology, the ontology in question would indeed be refuted.) But the burden of the argument contained within these chapters has been to show that the truth

of these stronger claims cannot be demonstrated unconditionally. Consequently the ascription of 'is necessary' to such premises may be no more (or less) defensible than the ascriptions of existence contained within the ontology against which these refuting premises are marshalled.

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#3. It follows unless there are totally incorrigible theory-free descriptive statements of sufficient logical power in themselves to refute a possible ontology, that no ontology is categorically refutable. The proviso 'in themselves' is important: for we have shown that one cannot appeal to the unconditional necessity of conceptual statements, and so a fortiori there are no conceptual, lexical, nor theoretical statements available which might be combined with theory-free descriptions in a categorical proof or disproof.

Thus if the classical approach, or any fragment of it, is tenable, there must be theory-free descriptive statements which contain or logically entail existence-statements. This means that such propositions must contain ascriptions of existence or must have parts which by definitional substitution yield or entail existence-statements. And if such a statement is to be categorical, these descriptions must be incorrigible.

As for the former possibility one does not normally consider ascriptions of existence to be components of theory-free observations. For instance, propositions such as: 'Numbers exist', 'Tables exist', 'God exist', even 'The Dodo no longer exists' -- whatever they are, are certainly not theory-free. Let us, for the present, assume the correctness of this observation. We establish this point in greater detail in

Part III, and shall not pursue it further here.

But might not ascriptions of existence be contained covertly within some descriptive statements, perhaps in the form of a defining phrase for 'existence'? But this I am afraid is ruled out from the start. For the word 'existence' hardly bears its meaning on its sleeve, and any definition of the term which is proposed (at least outside of mathematics) is not merely in the form of a convention to simplify discourse, but an explication -- and generally a prescriptive one -- for a troublesome concept. In this way such a definition is scarcely theory-free. For instance if I define a sound argument as a logically valid argument all of whose premises are true, all know, both how I am going to use the word 'sound' and to what it applies; and (except for a possible quibble about the term) it is accepted. If, on the other hand, 'existence' is defined, <sup>say,</sup> in terms of that which is perceived, all might know how ~~by~~ some philosopher ~~he~~ proposes to use 'exist', but this does not mean that all will accept that this use is in conformity with what is normally (although vaguely) intended when one uses the term 'exist', or when one applies the corresponding concept. In the first case, the concept of a valid argument all of whose premises are true, is clear and generally accepted by all who consider the matter. As a matter of convenience we decide to employ the term 'sound'; someone else might use the term 'conclusive', but the introduction of either term does not alter our understanding of the concept. However, if we propose a definition for a concept which is not clear, as is the case with Existence, the definition, unless it is a meaningless token, purports to clarify. It is for this reason that Berkeley, for instance, does not merely define existence, but argues for his principal that esse est percipi. The introduction of a definition in this sense is

sanctioned only in terms of a given conceptual scheme. So even a covert definition of existence could not appear within a theory-free descriptive statement. And if it is neither covertly nor overtly present in a description, it is also not derivable.

If no theory-free description contains nor entails an existence-statement, there is only one remaining possibility: namely that some statement, contained within or entailed by an ontology, prove incompatible with a theory-free description. (This is about what Berkeley shows to be the case in the course of his criticism of Locke's assertion that abstract ideas exist in the mind.) Were this so (and I am not certain that it is) we would have to modify our general argument to make it inapplicable both to logically and physically impossible ontologies. (We could in such a case define the latter as one which was incompatible with some theory-free description.) I do not, however, believe this latter represents a real possibility. For, with the exception of philosophers such as Hegel or Heidegger, is it not the case that philosophers will accept (or at least be severely troubled by) a logically conclusive argument? And even the above exceptions do not so much reject logic, as modify its accepted forms. But if we consider how Plato and many of his contemporaries were willing to accept Zeno's paradoxical conclusions, and believe that everyday objects truly "contradicted" themselves, it is hard to conceive that any of these thinkers would be deeply troubled if someone showed them that an ontology of theirs had consequences which ran counter to the content of a theory-free observation. Thus one might assert a physically -- but not logically -- impossible ontology. Credo quia absurdum. And further I cannot see how any genuinely theory-free observation could be used to refute any non-trivial

existence-claims. Cognizant of this possible modification, we proceed.

The above arguments are I believe conclusive. No theory-free descriptive statement contains or entails an existence-statement. As such none are of sufficient logical power to categorically refute any logically (and physically) possible ontology. There is one exception to this, but a trivial one. From nearly any allegedly theory-free statement, say 'I see this as red' or 'The clockhand is upon the numeral, 12', or 'The noise is painful' or 'It is a blinding flash', it follows that there is something, i.e. that the universe is non-empty. But since this is assumed before we apply the rules or axioms of predicate logic, we need no theory-free statement to tell us this.

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#4. The same conclusions apply with equal force to the claim of the classical approach that the truth of the correct ontology is categorically demonstrable. For how can one prove a logically possible ontology,  $O$ , to be true in this way, except by demonstrating the falsity of not- $O$ , or the truth of  $O$ ? The former course, we have seen is impossible. But to prove  $O$ , we encounter the same problems with renewed force. For if we could find no extra-logical premises to serve in a refutation of an ontology, these same--or similar--premises are equally lacking to categorically prove another ontology.

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#5. One might claim that there are intuitively evident, or self-validating premises, or that the consistency and applicability of an extended system of propositions most in some way warrant the truth of the position they establish. Although we find no evidence for these claims, it might be well to consider them briefly; since each of these subjects is a thesis topic in itself, we must need be cursory.

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As a possible source of premises, it would be tempting to rely upon intuition, i.e. upon an unshakeable conviction of the truth of the statement one was introducing. Such an intuition need not be facile and apparent, but might impose itself upon one's thought only after much searching and analysis. The force of such a conviction might be induced as much through a study of the consequences of the proposition and the inconceivability of any denial, as through an immediate grasping of a commanding thought. But with the possible exception of some axioms of



logic and of identity, what is intuitively true to one thinker may be rejected as spurious by another. (See end of XII-2. ) Thus intuitive truths of this type could not command an acceptance as categorically true.

We have already indicated the reason for this. Any intuition of sufficient logical power to establish or to refute an ontology, can be known only in terms of some particular theoretical structure. As such it is acceptable as a truth only within this conceptual scheme and -- to employ Strawson's term -- others which may be consonant with it. Any thinker outside this group would reject this claim.

For instance, if Paul had the sceptical background of the Roman consuls and not his fervent faith in the existence of one god, what would have happened to him on the road to Damascus? Presumably he would have seen a blinding light, if the tale is correct, and perhaps heard a voice, and blamed it on the heat or said, as Don Juan after him: There is something here I don't understand, yet'. And yet this incident, interpreted within the context of the religious world-views known to Paul, provided the grounds for an unshakeable conviction that God had come to him; whereas the Romans, whose schemes were inconsonant with Paul's, found his claim was mere superstition.

Consider in this respect, two of the most famous of allegedly self-validating existence statements. (By 'self-validating' I mean that the truth of these statement, upon sufficient examination, cannot possibly be denied by any rational man.) For example, Anselm, whose ontological proof we will now consider, writes:

I began to ask myself whether one argument might possibly be found,

resting on no other argument for its proof, but sufficient in itself to prove that *Goes* does exist" Anselm (I) Preface. Second string of italics mine.

Now I for one believe the argument which Anselm propounds is sound -- if we make certain large assumptions which I think are sanctioned within the Platonic world-view that Anselm, to a certain extent, embraces. We must for instance assume that there is a substantive relation of some sort between the idea of *x* and *x*; i.e. we must assume that the expressions 'idea of *x*' and '*x*' are convertible or at least that the first can be replaced by the second. If this (together with the comparability of entities in respect to their existence) is granted, Anselm's proof may be reformulated in terms of the following explicit premises:

i) There is present in the mind (the idea of) a being <sup>of</sup> which nothing more perfect can be conceived.

To avoid this awkward expression we shall call this latter a 'perfect being' and abbreviate it 'PB'. Anselm also explicitly introduces the second premise:

ii) To exist, or to be present in the mind is inferior to existing in reality.

But there is difficulty with this premise. Anselm cannot mean that if *x* is in the mind, *x* is inferior to itself not in the mind. Rather, let us say, that the premise means that if *x* is merely in the mind there is a *y* which is superior to *x*. I do not know what the ontological status of this <sup>*y*</sup> and its relation to *x* may be. But if we assume that this expression is meaningful, and introduce the tacit platitude: If *y* is superior to *x*, we can consider *y* superior to *x*', we can say that if anything is merely

in the mind we can conceive of something which is superior to it. This is not what Anselm says, but it follows from his premises, and I think states clearly the somewhat muddled set of relationships he does employ in Chapters II - IV of his "Prosologion".

Let us now make the following definition explicit:

iii) a is a PB=DEF There is no y which we can conceive of as superior to a.

Given these propositions (and I need not argue for their credibility to us, inasmuch as they are merely part of an illustration) it follows that a perfect being exists in reality. (In terms of the above premises, and presuppositions, it is impossible to deny this.) The argument is straightforward and we shall symbolize it directly in predicate logic. Where

'PB' stands for 'Perfect Being'

'M' stands for 'in the mind'

'R' stands for 'in reality'

'CSP' stands for 'conceived of as superior',

all the premises can be stated thus:

(1)  $PB_a \cdot M_a$  (We employ the convention that 'x is an idea of' can be replaced by 'x', and 'a is an idea of a PB' can be replaced by ' $PB_a$ '.)

(2)  $(x) (\exists y) (M_x \cdot \neg R_x \supset CSP_{yx})$

(3) a is a PB=DEF  $\sim (\exists y) CSP_{ya}$  (We assume  $y \neq a$ )

We introduce the following provisional assumption:

+1(4)  $\neg R_a$

and argue:

(5)  $(\exists y) (M_a \cdot \neg R_a \supset CSP_{ya})$

2.(From line 1. we know that there is an a, and so a is a possible value of x.)

(6)	$M_a \cdot \neg R_a \supset CSP_{ya}$	5. $y$ is flagged
(7)	$M_a$	1.
(8)	$CSP_{ya}$	4, 6, 7.
(9)	$(\exists y) CSP_{ya}$	8.
(10)	$PB_a$	1.
(11)	$\neg(\exists y) CSP_{ya}$	3, 10.
(12)	$(\exists y) CSP_{ya} \cdot \neg(\exists y) CSP_{ya}$	9, 11

Removing the provisional assumption, and rewriting (12) in terms of 'p' and ' $\neg p$ ':

$$\neg(13) \neg R_a \supset .p. \neg p \quad 4-12$$

From which

$$(14) \sim \sim R_a, \text{ i.e. } R_a \quad 13.$$

We conclude:

$$(15) PB_a \cdot R_a \quad 10, 14.$$

In words: a is a being of which nothing more perfect can be conceived, and a is in reality.

So, as Anselm says: (God) exists so truly, [He] cannot be thought of as non-existing" Anselm (1) Chapter 11. This is substantially what is shown in (4)-(12). In terms of the premises, the assumption that a PB does not exist in reality leads to its own negation. And this is not a trivial conclusion. For instance one standard criticism of the ontological argument is that the same reasoning could prove the existence of say, a perfect island. But this is not so, for the perfect island is not defined in terms of that of which nothing more perfect can be conceived, and so the crux of the above proof, line (12) cannot be established for a perfect island nor, I believe, for anything, but a perfect being.

But whether or not it is true that a perfect being exists, the above argument can be said to be conclusive only in terms of its premises and presuppositions. For each is employed within this (to us) curious proof. And since each of these can obviously be challenged, the demonstration is far from categorical. It is not self-validating outside the conceptual nexus of its presuppositions.

. . . .

#6. Poincaré once said that it was better to be clear and wrong, than muddled and correct. If one can judge by the amount of inconclusive discussion which Descartes' allegedly self-validating cogito has prompted, one must infer that this Cartesian argument has none of the virtues of the former. However granted certain large assumptions, we might try to defend its correctness along the following lines. To do this we must freely reconstruct Descartes' proof of his own existence. Descartes, as we know, finds it possible to say:

(i) I doubt that I have a body.

And Descartes, we assume, is also able to doubt (i), i.e. he can say:

(ii) I doubt that I doubt that I have a body.

But then he can also doubt (ii), i.e.

(iii) I doubt my doubting that I doubt I have a body.

Obviously this introduces a regress as infinite as it is inconclusive.

However, if Descartes' reflects upon this matter, Descartes can say:

(I) I doubt 'p'.

And if he now puts in place of 'p', not the expression 'I have a body', which follows 'that' in (i), but the more general expression 'I doubt',

Descartes is tempted to say:

(2) I doubt the statement 'I doubt'.

But (roughly speaking) it is not possible to doubt that he doubts: for the act of disbelieving 'I doubt' is an act of doubting. In other words,

(3) It is not possible to doubt 'I doubt'.

Thus in terms of (1) - (3), any time 'I doubt' is uttered honestly, as a normal declarative sentence,

(4) 'I doubt' is indubitable.

In other words, 'I doubt' seems to be self-validating, and as such true. But this is not enough. Descartes must now prove his own existence. This he can do if he takes (4) and, at the same time, assumes that any instance of the following schema is true:

For all  $x$ ,

(5) If  $x$   $\emptyset$ 's, then  $x$  is a substance that  $\emptyset$ s,

(where ' $\emptyset$ ' takes on as value any activity).

We can now infer:

(6) If  $x$  doubts, then  $x$  is a doubting substance.

Combining (4) and (6), we obtain:

(7) I am a doubting substance.

If one now includes Doubt within Thought, and introduces some further platitude relating 'substance' and 'exist', the I in question, namely Descartes, concludes:

(8) I exist as a thinking substance.

Let us for a moment accept this as a valid argument. But the conclusions: 'Descartes exists...' can be said to be sound only if it follows from true premises, i.e. (5) must be true and so must the inter-

mediate conclusion that it is not possible to doubt 'I doubt'). It is patently obvious that without this premise no significant ontological conclusion follows. So let us assume too that (5) is true within Descartes' conceptual scheme. But (5) is certainly not true in all conceptual schemes, for it claims that an activity is possible only if it is the activity of a substance. But this is preposterous. A vacuum transmits light-waves. Is a vacuum a substance which transmits light-waves? The class decides, by taking a vote, to go for a swim. Is the class a substance that takes a vote? Or again, according to Plato, the object of sight becomes beautiful through participating in Beauty. But such fleeting objects are certainly not substances for Plato. Yet if they participate, they must be substantive according to (5). In other words Descartes' conclusion at best is scheme-bound. It follows only in those conceptual schemes which contain (5) as a conceptually necessary truth.

And further I think we have been too lenient with Descartes. We have assumed that we may substitute any statement for 'p' in (1). And so we have permitted substitution of 'I doubt'. But is 'I doubt' -- in contrast to -- 'I doubt 'p'' -- strictly speaking a statement? Is not doubting, like loving, dyadic? I doubt something, x doubts y, Descartes doubts that he has a body, etc. But not merely 'Descartes doubts'. Confronted with any such expression the natural question is to ask: What does he doubt? (cf. Descartes III (p. 157), but see Malcolm (1).)

But if this is so, then even (3) does not follow unconditionally. For again we have an inconclusive regress e.g.:

I doubt 'p'

What is it that I doubt in 'p'?

I doubt that I doubt 'q'.

What is it that I doubt in 'q'?

I doubt in 'q' that I doubt 'r'.

This reiteration of doubting must terminate someplace. Let us say it ends with 'q', and let 'q' stand for, 'I doubt everything'. Can I then doubt 'q'? At the drop of a hat. Or let 'q' stand for 'I have a body'. Again this is dubitable, at least for Descartes. And I suggest that however we interpret 'q', ultimately we discover we are talking about something which is dubitable. And this applies equally well if one tries to argue that in doubting one is aware of something that is thinking. For thinking again is a dyadic relation. Descartes, strictly speaking, is never aware merely that he is thinking, but that he is thinking about something. And--particularly among philosophers--this situation is the most dubitable of all.

Or granting even the indubitability of doubt, what is the cash value of his alleged discovery? Between it and his confident assertion that he exists, and then that God exists, and all clear and distinct ideas are true, lies a wasteland of scheme-bound premises.

Admittedly this is a scandalously brief discussion of the cogito and of allegedly self-validating propositions in general. But I propose that an analysis along the above lines will show any such conclusion to be either poorly reasoned (as I have argued seems to be the case with the indubitability of doubting) or to depend for its success upon particular features of particular conceptual schemes. This I have illustrated both in respect to the premises of Anselm's ontological argument, as I have interpreted it, and in respect to Descartes' assumption that activities must be supported by substances. In neither case can conclusions established in this way be introduced as elements in a categorical proof or disproof.



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#7. There is one further matter we must attend to before proceeding. This is the belief that a statement such as 'Material objects exist' or 'Tables exist' is incontrovertibly true in respect to the world we know. This is the position of common sense. It claims our contention that no extra-logical premise of sufficient power can be introduced as unconditionally true, is unfounded. And truly if there were existence-statements which seemed to bear an indubitable warrant, it is quite likely that they would be propositions such as those we have just mentioned. However, if this suggestion appears to be acceptable, it is only because a statement such as 'Material objects exist' is couched in such hopelessly vague, or ambiguous language that it can mean nearly anything.

We will return to this in Part III, but for the present let us recall 1) when 'exist' is defined the resulting expression is conceptually laden. For such a definition is either explicative or prescriptive or both. And as such it is acceptable only within some particular conceptual schemes. 2) Similarly the notion of a material object, and even of a table, is vaguely drawn. We think we know what we mean by a table, or a material object namely: that, there. But what is there? Do we mean by 'material object' anything which occupies a stretch of time or space? (A wave for instance) or must it have a certain size or shape or color? must it be reidentifiable or may it be only an occasional collocation of qualities? or is it that which we know of in terms of scientific theories? or is it a subjective construction? or must it be a significant isolated component of a world independent of us? etc. I am certain that there is someone who will answer yes to each of the above queries, or others like them. But by the same token, since they establish criteria

which are often mutually exclusive, the assertion by one thinker that material bodies exist, becomes possible only when another's<sup>1</sup> assertion, that material bodies exist, is denied.

That is to say, the adherence to one interpretation of the above sentences, in no way obliges one to accept the position adumbrated within another interpretation. On the contrary, when we compare the views of common sense realism, of physical reductionism, of phenomenalism, of Moore within his essay "The Nature of Judgment", etc., we see that the advocacy of one position may force one to deny the claims of the rival accounts. Although statements such as 'That table there exists' appear to be accepted as true by all or nearly all, it is because, like political promises, they can be interpreted by different hearers to mean nearly anything. But once a sharp meaning is imparted to their bland pronouncements, i.e. once they are paraphrased within the language of a specific theory, the agreement vanishes, and the purported unconditional consensus turns to controversy.

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#8. Confronted with such an impasse, in which neither intuition, experience, language, nor our concepts can yield premises adequate for the needs of categorical proof and disproof, an advocate of the classical approach might reply: 'The truth must, and somehow will be discovered by means of rational investigation'. But in the absence of any concrete demonstration, we must assume that, if the approach is phrased in this way, it is only a dogma. And at such a point discussion must cease.

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In an earlier chapter we refrained from describing arguments as

acceptable refutations of otherwise logically impossible ontological positions. In lieu of this we said that such arguments serve to invalidate a totality of statements. In terms of the assumptions we have made concerning the requisites of proof, etc., we see that the same conditionality of refutation and of proof applies to specific, definite, logically possible ontologies. Where such an ontology is demonstrably incompatible with some extra-ontological premise, a logically acceptable disproof invalidates the totality, i.e. the ontology together with the refuting premise in the conceptual scheme that warrants it. In those situations in which the premise can be considered by all possible parties to be absolutely necessary or totally incorrigible (if this is ever so) the effect of such a demonstration of incompatibility is clearly to refute the ontology concerned. But, as we have seen this suggestion of conclusiveness is only specious. For once the aura of necessity and incorrigibility is lifted from the premises of the argument, once the defender of a threatened ontology is free to say: 'The refuting premise is not necessarily necessary', or 'it is corrigible', a possible ontology, provisionally refuted, can be reinstated.

This conclusion parallels those advanced earlier concerning ontologies impugned to be impossible. But it should be clear that the grounds are different. In the first case it was the vagueness, ambiguity, and lack of definiteness, etc. of actual ontologies which led us to conclude that no argument or arguments directed against them could be considered to provide an absolute refutation. In the present case, the ontology, by hypothesis, is consistent, definite, etc. The difficulty here lies in the nature of our conceptual apparatus itself. If this apparatus were

unchanging, fully determined, complete, and guaranteed free of contradiction -- all of which it is not -- the ascription of 'necessary' and 'incorrigible' (wherever this was correct) would be indubitable. The concepts, the words, and the higher-order data introduced as premises in a putative refutation would then be as much above the sway of change as the realm of the Forms. But to the extent that this is not so, a logically possible ontology may be provisionally proved or refuted, but is not and (I have argued) cannot be categorically provable or refutable.

And if we consider the features of any rational analysis, the above conclusion concerning the relativity of the truth of extra-logical statements may now appear in a better light. If one assumes the uniqueness of logic, then one has every right to say in principle and without any reservations, that an alleged conclusion is a consequence of a given set of premises. (This is so because there is a complete proof procedure for <sup>to establish</sup> elementary logic.) But/<sup>to establish</sup> this unconditional knowledge of consequences ~~we need~~ <sup>logical</sup> refer only to the/<sup>logical</sup> structure of the statements concerned.

On the other hand, the assertion that any extra-logical conclusion is true depends not only upon logic but upon the content of the/<sup>initial</sup> statements, namely: that they be true. And we are ready to accept, in respect to all or most of these, that whatever extra-logical material they may contain, if descriptive, is corrigible, and if conceptual, is alterable. But however unsure the ground may be upon which these premises rest, this uncertainty does not and cannot effect our knowledge of their consequences. The knowledge that a certain proposition does follow is, by hypothesis, inalterable -- unaffected by any subsequent reappraisal of the truth of the premises upon which it is based.

What does alter is that some of these sets of consequences from time to time are relegated to the antiquarian's care and replaced by others. Thus any extra-logical consequences which concern us can be said to hold only inasmuch, and as long as the conceptual premises (upon which their assertion in part depends) are said to hold. In restricting ourselves above to consequences which concern us, we do not wish to exclude the possibility that there may be incorrigible descriptions which any observer, irrespective of his conceptual bias, could establish, and that statements describing these observations, by purely logical means, might then yield other propositions which were also unconditionally true. But, as we have noted earlier, this sort of statement, if there were such, could not contain any ascription of existence.

What we wish to maintain, is that in general within any organized body of knowledge, the usual form of the relation between sets of statements is one in which the truth of the consequent<sup>s</sup> is and remains conditional to the time-bound truth of the antecedent<sup>s</sup>. And I suspect if there were any extra-logical statements which could be said to be categorically true, such propositions would either become part of an extended logic (as for instance Leibniz's Principle of Indiscernibles has become <sup>an axiom of</sup> identity theory), or in other cases such propositions would be so lacking in logical power that they would be unimportant.

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#9. Our argument is now fully general. If it could be shown -- unconditionally -- that there were extra-logical propositions true in all possible, or even in all actual conceptual schemes, then any statements of this kind ~~one discovered~~ would indeed provide incontrovertibly true premises.

And as we have noted, the existence of such propositions, for all sciences including that of existence, is and must be presupposed by adherents of the classical approach. And I think it is now clear that even if there were such propositions, it would still be impossible to categorically assert their truth. For the most that one could do in such a case would be to argue from within a conceptual scheme, and in terms of it, that some statements of this kind must hold in other schemes. But this immediately imposes a condition upon the demonstrability of their truth; i.e. the claim that they are unconditionally true is, itself, not absolute but scheme-bound. And if we accept our notions of proof, and countenance the evidence that conceptual schemes do vary, I believe that this conclusion is inevitable. Even if one granted that the rules of logic were unique, and as such binding at all times, I think we have shown that (with the exception of the constraints imposed by certain most general facts of nature) no extra-logical conceptual premise has ultimately any further warrant for its assertion

than the fact that we do accept it at a particular time, or that it follows from others that we do accept at that time.

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We have also argued that the truth of any theory-bound descriptive statements can be said to be incorrigible (if at all) only in terms of a specific conceptual structure. Thus the above conclusion applies to these as well: no such extra-logical statement can be said to be true, simpliciter. And as for theory-free descriptive statements (if there are any) we have argued that in the absence of supporting conceptual propositions, they cannot be used to establish inferences strong enough to either prove or disprove any significant claim of a logically possible ontology.

The disjunction between conceptual and descriptive statements is clearly not an exhaustive one. But we have argued, in our analysis of the various senses of 'necessary', that any ascription of extra-logical "necessity", whether it be physical, in re, conceptual, or lexical, is possible only if i: other statements are conceptually necessary (in the sense we have adumbrated in our theory of concepts), or ii: the statements concerned are descriptive. We have shown that the necessity of the former is not necessary, but conditional. As for the latter, we assume that the disjunction employed above between 'theory-free' and 'theory-laden' is exhaustive. The negative conclusion of the previous paragraph applies to these. So that in the absence of necessarily necessary conceptual statements, any claim to establish an ontology in whole or in part upon descriptive statements is equally illusory.

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One might feel in our stress upon the demonstrable that we have run rough-shod over truths known by intuition. But I do not think this is the case. We have analyzed the claim that first principles can be known this way, and shown that the doctrine of essentialism upon which any recourse to necessity in re is based, is itself scheme-bound. Another source of alleged intuitive truth, i.e. theory-free observations, we have shown to be of insufficient logical power to generate more than the conclusion that something existed. ( But the non-emptiness of the universe is presupposed in our use of predicate logic, and thus the "conclusion" is only possible if we have already assumed its truth within the demonstration.) As for other sources of alleged intuitive certainty, we have looked briefly at the claim that there are self-validating propositions of sufficient force to refute or prove existence-statements. We have suggested that the characteristics displayed by the two examples chosen are representative of all: either the conclusion is the result of poor reasoning, or it assumes as true, premises, tacit or otherwise, which themselves are scheme-bound. So at the very best the soundness of any claim of self-validation, if it is valid, is again conditional.

Thus, in terms of -- and relative to -- the theories and assumptions we have used -- it follows that one cannot claim that any to establish or to refute a logically possible ontology extra-logical premises introduced into an argument are unconditionally true. Since the existence of these, and our capacity to employ them within a demonstration is presupposed as a necessary condition for the assertion of the classical approach, the approach is untenable. For want of these, this approach is like some mythological creature which all suppose to have such glorious wings, till one day when it is called



upon to fly, its wings fall off. - -

One can imagine how the success of geometric demonstrations among the Greeks, kindled the dream -- the myth -- of an unconditional metaphysical discovery. With the benefit of hindsight, i.e. with the aide of Hume, Kant, and others, we can see the confusion in this dream: The confusion between the rational investigation of mathematical structures, and the belief that in studying these the laws of what we now call 'physical' space can be discovered via pure thought. We, with our present conceptual formation consider this to be impossible. If we rephrase Aristotle's earlier image of the bat's eyes, the error seems to lie not in unfamiliarity with the truth but in this: the rays of an inner blaze of light which (as we would say) illumine the intra-conceptual consequences of certain assumptions are taken, mistakenly, to light directly on things outside the mind. This mistake has spilled over more than two thousand years of thought.

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#10. Without relinquishing his basic tenet that there is one whole truth whose parts are discoverable, the advocate of the classical approach might propose another tactic and argue thus: Among various logically possible ontologies, certainly one of these is true, and this can be recognized -- inasmuch as one theory is more plausible than any other. For in any set of rival assertions about existence, is not one of these the simplest? or of greater explanatory power? or more workable and less encumbered with artificial assumptions? or closer in its general presuppositions to that of other theories which we accept as true? or more compatible with intuition and experience? etc. So if one position fares better than its compeers under such an appraisal, can we not then say that it contains the most plausible account? Admittedly, at least at this stage of our intellectual development, the determination of plausibility cannot be conducted with logical rigor. But there are certain implicit canons to which we can refer. And is this not parallel to the procedure of any descriptive science? Even in physics, for example, a truly crucial experiment -- one which would be the analogue of a categorical logical proof or disproof -- is rare. For in most cases, no one possible experiment is totally conclusive. And in many theories it might never even be formulable. But this does not prevent one from assigning a weight of probability to a particular theory in accordance with its satisfaction of certain criteria. In this way, even if all proof within any logically possible ontology is conditional,

one can still appraise one of several rival theories as the most plausible.

'This position' he might avow 'has its weak points. What "data" could possibly confirm or disconfirm an ontology? or given a set of criteria, how could one be certain that only one position best satisfies them? or if the satisfaction of different criteria by two or more theories is uneven, how is one to justify the ascription of 'true' to the theory which scores high in one, and 'false' to a position which might score well in terms of another?'

Fairly spoken. But let us observe that the exponent of the classical explanation, in shifting from 'demonstrably true' to 'plausibly true', remains faithful to its central tenet, i.e. that there is one true ontology, or one consistent set of true ontological statements. Although we shall investigate this assumption in its proper place, it is time here to look at another, i.e. that philosophic theories can be adjudged in a manner analogous to those of science. To do this let us compare the theory-appraising procedures of the two disciplines.

A scientist in applying a term such as 'plausible' or 'high weight of probability' to a theory, assumes that no adequately trained, reasonable colleague -- provided he is given the same data--would reply 'absurd'. There are, of course, differences in the evaluation of theories, but these are generally of degree and not polar. A consensus of scientific opinion is possible (within a specific discipline at a given time) because to a great extent, the criteria for the theory appraisal are theory-neutral. Further, since these canons are part of the common formation of scientists, as scientists, they are shared, to a remarkable extent, by fellow-

scientists. To be sure the advocates of rival theories will inevitably interpret data in terms of their particular positions. For instance Newton and Huyghens took the same data concerning the known phenomena of light and explained it respectively in terms of a corpuscular and a wave theory. Similarly the information we have today concerning the red-shift in the spectra of distant stars has led to the formulation of different theories concerning the state of the universe. But the discussions between advocates of rival positions concerns the adequacy with which the theories under study explain the known and discoverable data, not the criteria which are to be employed in appraising them. Newton admitted the weakness of his account, and the discovery of quasars has forced a modification of contemporary cosmological hypotheses.

I do not mean to suggest that discussion in and about science is all peace and light. Witness the controversy concerning the Copenhagen interpretation of quantum mechanics (supported among philosophers for instance by M. R. Hanson and attacked as phenomenological and anthropocentric by Smart); or Einstein's rejection of this same mechanics, because the use of probability-based calculations is intrinsic to it, and "Nature" (in his view) "does not play dice." But except for formative and revolutionary periods, such as the present, the respective merits of most scientific theories at most times can be appraised without this raveling back into a discussion of criteria.

But the reverse is true in respect to philosophy. Unlike the canons embodied in scientific method, the criteria, in terms of which a philosophic theory may be appraised as plausible, are not and cannot be theory-neutral. On the contrary philosophic attitudes of one sort or of

another effect both the importance and the weight of value which one ascribes to these criteria. To illustrate this point, let us consider the question: What is the relation between our knowledge, and that of which it is knowledge? The realist answers that there is a strong correspondence between the structure of things and their representations in the apposite theories and concepts. The conceptualist denies this and asserts that the structures are of our own making. Now how is one to appraise these rival philosophic positions? If theories (as the conceptualist claims) are merely our own constructions, one must evaluate them in terms of, say, their simplicity and elegance. The conceptualist position contains no "unnecessary" assumptions, such as the correspondence between theory and extra-conceptual processes posited by the realist, and further it explains everything in terms of one element (namely, man's free constructions). Obviously the conceptualist's explanation wins hands down on grounds of simplicity -- if such criteria are applicable here.

But does this make it more plausible? The realist might argue that we are certain that there are regularities amongst extra-mental phenomena, and that any appraisal of the plausibility of a theory must first ascertain how well the theory fits such facts of our immediate experience: it should not like an esthete with an olive branch merely follow the airy-fairy of simplicity. He might argue further that the conceptualist is constrained to explain away our belief in the presence of otherwise self-evident regularities and objective structures which we encounter in our experience. Thus, if an answer to the above query is appraised in terms of realistic criteria, the conceptualist position runs a weak second. Which is now more plausible?

Or consider the following issue concerning the relevance of criteria. According to Plato's account, Socrates rejected the speculations of Anaxagoras and other fifth century thinkers, on the grounds that these thinkers could not explain how the universe was structured and ruled by wisdom. To Socrates, any explanation -- however powerful -- which did not introduce considerations of this kind, was unacceptable. For others, e.g. many of the materialists, any explanation which does introduce features of this kind, is inadequate. It is e.g. along these lines that Hobbes considers it to be a virtue of his particular system that he can reduce everything to chains of motion.

Further, philosophic attitudes not only influence the appraisal of the content of theories, but also their form. To a logician for instance, any position which contravenes accepted logical laws is highly implausible from the onset. But logic, as we know, cuts across the grain of language and that same argument which contravenes the artificial canons of logic -- as long as it fits the facts of language or our conceptual practices -- may be judged acceptable by others. (For instance Quine has argued that one cannot formulate 'analytic' in a logically acceptable manner and thus the distinction analytic-synthetic cannot be applied. But others, less interested in the niceties of symbolic logic, find this argument inconclusive. See W. V. Quine (1).) Or, to another philosopher for whom contradictions work themselves out in history, perhaps the position of anyone within any of the various camps of english-speaking philosophers might be rejected as lacking in an appreciation of true logic.

I trust it is clear that the successful ascription of 'plausible' to a given position must presuppose a common agreement concerning the

criteria of plausibility. As far as philosophy is concerned, these criteria, or even the criteria of these criteria, depend upon -- and are responsive to -- the pressures of particular philosophic attitudes. A philosophic theory can be appraised as highly plausible when it satisfies criteria sanctioned by a given position, and this same theory can be adjudged highly implausible in terms of criteria favoured by another philosophic position. As Whitehead observes: "A great deal of confused philosophical thought has its origin in obliviousness to the fact that the relevance of evidence is dictated by theory" Whitehead (1), XV Section I. Philosophic criteria, unlike their confreres in science, do not perch on the fence, but are dragged into the melee, and thus one cannot ascribe 'plausible', simpliciter, to an ontology, any more than one can ascribe 'true'. The appraisal of an ontological position can be established -- but it is scheme-bound, and as such it is also conditional. Thus 'plausible' fares no better than 'categorical'.

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#11. The brunt of the preceding analyses has been to show that the appraisal of an ontological position, or of any existence-statement, cannot be categorical, or absolute, but conditional and relative. In terms of the assumptions we have made and the distinctions we have established -- unless we are in error -- no (extra-logical) premises of an ontology can be characterized as categorically true. On the contrary, since no unassailable warrant can assign 'true' to any extra-logical premise of an ontology, it is impossible to demonstrate categorically the truth or falsity of any non-trivial existence-claims that it might contain.

At best one might claim that these claims are true in respect to a given set of concepts holding at a specific time. (And even this

contention, in view of the open-ness and indefiniteness of crucial areas in most conceptual structures, must be hedged with further reservations and conditions.) As such any proof, refutation, or argument for or against a given logically (and ? physically) possible position is conditional -- a hypothetical deduction based on premises which, although far from arbitrary, at the same time lack any warranty of unshakeable certainty. The only categorical, time-free conclusion such procedures might possibly establish, is a demonstration of the relations of mutual compatibility, incompatibility, etc. which hold between various sets of statements, considered as premises, and other statements which one might wish to assert concurrently. This would be a sort of pure mathematics of conceptual thought. And this thesis is, in some respects, a modest essay along such lines.

At another level, ontology might involve (and I am tempted to say: inevitably does involve) a confrontation of such structures with the so-called "data of experience", i.e. an investigation of those structures and those accounts which appear as credible in respect to what is considered the best attested data. But (returning to our point) in view of the extreme difficulty of establishing any theory-free content in most or all of the "data", it seems likely that the results of such an investigation would themselves be influenced by the initial conceptual structures in terms of which the evidence is established.

And finally, although one can appraise a position or a conceptual structure as plausible in respect to the manner in which it satisfies given



criteria, these criteria themselves reflect an initial philosophic bias. The plausibility of a philosophic theory can be established, but the value of such a determination is nevertheless relative to the choice of the criteria employed, and again conditional.

If this is so, and within that part of our conceptual scheme which I have used I see no grounds upon which it can be otherwise, then our normal idea of what is provable, or plausible, or ascribable as necessary cannot be applied to a specific ontology without an at least tacit reference to the premises and criteria in terms of which the appraisal is made. If there were no alternative ontologies and alternative conceptual structures (in the manner in which there may in fact be no truly alternative logics) and if all concepts were closed and their features inalterable, the reference to such premises and criteria would be of trivial concern. But unlike logic, there are an impressive array of genuinely alternative ontologies and the history of ideas is laden with accounts of conceptual change. A reference to the premises and the criteria they establish, in terms of which an ontological position is to be appraised, is mandatory. From this it follows (unless one can unearth some rich and undiscovered vein of self-evident and incontrovertible premises) that no ontology can presume to state the correct conceptual structure concerning existence and existents -- nor can it presume to be absolutely true in some lingering sense of an objective truth, simpliciter, which is just there to be discovered.

## CHAPTER NINE

### Conditional Proof and Disproof

#### The Unicity of Truth

#1. Within the preceding chapters we have examined successively weaker claims concerning the categoricity of proof and disproof in ontology. In each case we have found the claims

unfounded. If so, then it becomes reasonable to inquire whether existence-statements are at least conditionally provable, and if an ontology can be said to constitute a single consistent hypothetical deductive theory, and whether this can be appraised as true and complete or whole. For if these questions cannot be answered positively, what rational purpose might be served by any body of existence-statements, or any discussion concerning existence?

We will discuss these questions in the following order: whether such a theory is 1) consistent, 2) whole, 3) deductive, 4) single, i.e. unique, and true. 1) As for consistency, it is evident that we have assumed from the start that some ontologies are self-consistent. Otherwise there would have been no need to seek farther for an explanation of incompatible ontological claims. Let us maintain this assumption in force.

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2) And as for wholeness, an ontology may be said to be 'full' or 'comprehensive' whenever it assigns a definite ontological status to all entities and types of entities. For instance an ontology which asserted: 'Nothing exists but matter, and by matter we mean.....' would be comprehensive. (It applies to all entities and types of entities.) It will be convenient in the sequel to consider an ontology as comprehensive, and any proper part of such a fragment of the fuller one. In one sense of 'whole' a comprehensive ontology can be considered whole.

3) We turn now to the question whether an ontology can be said to form a hypothetical deductive theory. To avoid a misunderstanding, let us make it clear that such a theory need not be stated in the form of a quasi-mathematical deduction, as for instance in Spinoza's "Ethics". Yet, however relaxed the surface of the argument may be, if we are to have

rational discourse, it seems axiomatic that we consider certain facts, rules, concepts, theories, or combinations of these as starting points, and then investigate the nexus of interrelationships they establish. Even if our interest is only to establish the logical geography of the subject, I cannot see how any conceptual cartography of this kind can be performed without an at least tacit reference to some such underlying logical structure -- even if we develop it as we proceed. This structure, of course, may not conform to the stricter canons of symbolic logic. (For instance I have included rules among the starting points. Rules as such are not normally considered deductive premises.) But at the very least the structure so formed must comply with the logic of ordinary discourse. After all, must not any statement that so and so is the case (if it is not an initial posit) be warranted by some rules? For if this were not so, what possible justification could one have in introducing it? Similarly, if one argues for the plausibility of some conclusion, one claims -- given certain assumptions -- that these together with their consequences can be shown to order a heretofore puzzling region of intellectual concern. Thus, in this weaker sense of deductive theory, I think that nearly any philosopher is committed to the belief that -- even if conditional -- the statements composing the subject of his study can be structured in a manner analogous to that of a clearly defined deductive system. (Whether or not it is worth the effort, is another question). We shall in the sequel investigate the extent to which this assumption can be satisfied.

4) But would this form a single theory? In a trivial sense the answer is obvious. For we can include any number of sentences between braces and consider the totality of these a set, and so a single unit. But equally obvious, when Aristotle talks of truth as a whole, he does not refer to an arbitrary heap, but to one totality of statements which is appraisable as true or false.

So when we inquire if -- even conditionally -- an ontology forms a single deductive theory, our interest is in the uniqueness of this theory inasmuch as it purports to be true. We have, above, assumed the consistency of such a theory, but can we assume that within any scheme there is only one true or correct ontology to discover?

If such an assumption were warranted, we might then say, in respect to a given scheme, that such and such an ontology was true, or, if more than one ontology could be shown to follow from the concepts in force within the scheme, that all of these were true and mutually compatible. And since our fundamental interest lies in the concepts of our own schemes, we would then have discovered after all the true ontology or ontologies which concern us. In this somewhat weaker form, the classical approach could then still be said to be justified.

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#2. In the following I argue i: the presuppositions of this claim are still so strong there is little reason to believe that they are generally satisfied within actual conceptual schemes, and ii: much of the force even of this conditionalized approach becomes vitiated when we look more carefully at the use of 'true' in the above. We turn now to consider the first point. But before doing this, it would be well to relate these issues to the general

argument of this chapter. The task of this chapter is to question the warrantability of the belief that all true or correct existence-statements, established within a particular scheme, are and must be mutually compatible. Within sections 2-3 we observe that, as things are, it is highly unlikely that any conceptual scheme can satisfy the presuppositions of this belief. In the remainder of the chapter we argue that this belief, although possible, is in principle unwarranted. In section 4 we point out: to assume that one of two propositions of the form 'a exists' and 'a does not exist', simpliciter, must be false, is itself nonsensical. Section 5 is devoted to a realist's defense of the above assumption. We argue in section 6, that this contention is unwarranted, and then proceed to an extended criticism of the realist's claims. Specifically we show that a genuine alternative theory concerning theories of existence is possible. If such is the case the realist claim -- that all true or correct existence-statements established within a particular scheme are and must be compatible -- is unwarranted.

But now to the first point.

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We ask: Under what conditions is it legitimate to assume that one and only one set of existence-statements can be demonstrably true within a particular conceptual scheme? Two conditions, at least, are necessary. The first by now is obvious: all existence-statements contained within the one ontology (or within the mutually compatible ontologies) of a given either directly or in respect to the application of these concepts to the given conceptual scheme, must be warranted in terms of the concepts in force, /

(All such existence-statements would then either form part of a full description of the concepts of the scheme, i.e. of the abstract structure associated with them, or follow from these as above.) This first condition, although weaker, is similar to those presupposed by the initial classical approach, ~~the~~ the initial premises and their consequences are still regarded as uniquely true, although in this case, conditionally so.

For if there were only one statement which was not so warranted then, by definition, neither it nor any part of the ontology which depended upon it could be shown to be true. Further, if there were such a statement which was neither interdicted nor warranted, there would be at least one other proposition, i.e. its negation which would also neither be warranted nor interdicted. Thus two ontologies could be established in this way and neither could be demonstrably true in its entirety. (One might object in such a case: Nevertheless one of these theories is true in some objective way<sup>1</sup>. We shall in the sequel argue that this use of 'true' is meaningless.) For the present, let us restrict discussion to ontologies which purport to be demonstrably true in terms of a given conceptual scheme. As we have just shown, to believe that there

can be one such ontology, or set of ontologies, is to assume that the concepts in force are sufficient in themselves to warrant the assertion of each statement contained within the ontology, either directly or when applied.

Also, if one believes that the ontology is comprehensive, then a specific ontological status must be assignable to each entity or type recognizable within the scheme. And I do not see how one can claim that there is one true ontology without tacitly assuming its comprehensiveness. For otherwise one would be forced to countenance the supplementation of the "true" ontology with other statements which were mutually incompatible and, as above, neither provable nor disprovable. E.g. an agnostic claims that -- however unprovable the proposition that God exists, may be -- nevertheless the statement or its negation is true. It would be a very curious position which permitted both to be true.

Lastly one must also presuppose that the conceptual scheme, in terms of which the allegedly demonstrably true ontology is established, is free of contradiction: the conjunction of all full descriptions of all concepts in force within the scheme, together with all their entailments, contains no mutually incompatible statements. It is obvious if this were not the case, that any statement, or any ontology, could be inferred within such a scheme, together with its negation.

Perhaps the comprehensiveness referred to above is optional, the first and third conditions are necessary. Unless these are satisfied, no assertion of the form: 'There is one demonstrably true ontology within the conceptual scheme we hold' is justified. Mark well, these are not impossible conditions. It is not impossible to assume that each statement of an ontology is fully warranted in terms of the concepts in force within



the scheme in which it is established. Nor is it impossible to assume that the allegedly true ontology is, at least in principle, comprehensive; nor that a full description of each concept within the given scheme, and the conjunction of all these together with all their entailments, is also free of contradictions. Certainly these are not impossible conditions. But I think that the task of showing that they are satisfied in any given scheme is practically insuperable.

Nor could one ignore these conditions, and assume their satisfaction the way, for instance, mathematicians for a long time assumed the consistency of arithmetic. For if we assume that they are satisfied in any given conceptual scheme, we presume too much. Consider this: Is it not extraordinary to claim that every statement one advances is fully justified, in terms of the concepts one holds exactly in the way in which they are said to hold? For this means that one could not mend, tinker with, nor modify a concept in the very slightest. All that one could do would be to report: This is the way it is', without the slightest explanation, elaboration, selection, alteration, and -- I am tempted to say -- without the slightest delight. And does not this assumption run counter to nearly all of our experience? Do we not find that thinkers, even "descriptive" metaphysicians, are constantly forced to prescribe meanings for the established terms they use, and to explicate (and not merely to explain) current concepts, i.e. to stress certain features and to discard or supplement others? Is it not the intellectual's task generally to select from, to modify, and to add to the existing conceptual order? When we consider the statements of an ontology as following inevitably from that of concepts in force, the way an electric light goes on when the switch

is closed, are we not confusing thought with its artifacts? What a philosopher leaves us is an ordered body of statements. But this is only after his labors and as the result of his investigation. As Hanson observes in his inquiry into the conceptual foundations of science:

In a growing research discipline, inquiry is directed not to rearranging old patterns, into more elegant formal patterns, but rather to the discovery of new patterns of explanation"

Hanson (1) p. 2. Italics mine.

This certainly applies to the activities of any important figure or movement in philosophy.

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And similarly, we cannot assume that the second necessary feature -- the total consistency of the conceptual scheme of any time -- is generally satisfied in actual schemes. Locke, in terms of the concepts in force, I think showed credibly enough that one could not maintain a belief in divine rights. Yet these same concepts, together with that of divine right, were part of the scheme with which Locke started. Was this earlier scheme then consistent? Hume showed that one could not justify a belief in the law of causality. Yet a belief in this law was part of the conceptual scheme which Hume initially shared with his contemporaries. Was this scheme then consistent? Kant showed that one could not categorically prove certain propositions of metaphysics. Yet a belief in dogmatic proof was not only part of the conceptual scheme within which Kant initially slumbered, but that of Leibniz, Spinoza, Descartes, Aquinas, Aristotle, Plato.... There is a strong presumption that few actual schemes, if ever placed upon the operating table, would prove free of contradictions.

The mere presence of incompatible ontologies and incompatible philosophic theories of all sorts, within the same conceptual scheme, is at least prima facie evidence that some of the conditions necessary for the assertion of the above claim are left unsatisfied. In any case, the burden of proof lies upon those who wish to claim that their theory of existence is in any way the unique one, the true one, even conditionally.

I think it would be more judicious to claim that in any given conceptual scheme there is a core of statements of interest in the establishing of any ontology within the scheme. One could probably claim even further that, given this core, there were other statements which did follow and others which, although not warranted, could be said to have a relation of involution to the initial ones -- i.e. if all the initial statements were true, all in the second set could not be false. This situation permits different thinkers to build up alternative ontologies based upon the same core. Each ontology has the warranted core statements in common, but is distinct in respect to its choice of propositions from the second set. These latter provide, as it were, the metaphysical options left open within the scheme. Two philosophers agree, as for instance Aristotle and Plato, inasmuch as both accept one core of conceptual beliefs, e.g. concerning the unchanging nature of reality. This is a fragment of a conceptual scheme they share. At the same time these same philosophers disagree inasmuch as they argue that other statements, which we would say are neither warranted nor interdicted within this scheme, are also true. (Aristotle, for instance, in contrast to Plato, asserts that the concrete individual is substantial.) And this may be the source of much of the indecisive friction which develops between the advocates of rival positions.

For neither can prevail totally over the other, inasmuch as each one attempts to pose (and I think in vain) the heavy artillery of demonstration in the airy heights of the unprovable. For, if our description is correct, the conceptual scheme they have in common permits, i.e. sanctions, the expression of these opposing attitudes.

In terms of the

To continue, /premises we have employed -- premises which seem to be consonant with the central logical features of our present conceptual scheme -- I see no other conclusion: not only are existence-statements incapable of categorical proof or of unconditional assertion, but even relative to a particular scheme, we cannot make any general assumptions either that they are provable or warranted.

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#3. We have argued in the earlier chapters that no ontology is categorically provable. We have argued recently -- in practical terms -- that the assumption there is one demonstrably true ontology within a given scheme, is highly presumptuous. But this latter difficulty is due to contingent features and one might still maintain -- given a scheme which was self-consistent, etc. -- that one could show there was one ontology within it, and one might even try to maintain that any alternative ontology contained within any other scheme would in some way be defective, or a fragment of the former. It is, for instance, along these lines that one argues that logic is unique. All proposed alternative logics share with classical logic one common core of axioms. But the only complete enlargement of this axiom set is that of classical logic. See Tarski (2) and Kneale (1) p. 574.

And an argument of this kind becomes of critical concern at the

present juncture. For if one cannot escape the limitations of one's scheme in some way, one is forced to accept not only that there are as many true ontologies as there are different concepts of existence in force in different schemes, but even further -- that there may be as many acceptable theories of existence as there are alternative ontologies sanctioned within each scheme. And this would not only bloat a universe with ontologies, but would run counter to our intuitive feelings that in some bedrock manner, after all, we certainly know what exists.

Such an argument might for instance claim that a particular ontology was comprehensive in respect to a particular scheme, and then argue that it was absolutely comprehensive. Let us grant, contrary to the tenor of the preceding sections, that some conceptual scheme contains a concept of existence in terms of which only one comprehensive ontology can be established; i.e. all other ontologies sanctioned within this scheme are fragments of the former. Let us assume too that this scheme is self-consistent, and further that one can show, in terms of it, that no other alternative ontology, contained in other schemes, can be as comprehensive. Let us also assume (without clarifying this assumption) that the former ontology, because of its comprehensiveness and perhaps other features, can be said to be the true ontology.

Agreed. But how could one judge the comprehensiveness of any such ontology? Clearly one would have either to enumerate all entities and types of entities within the universe and show that the ontology assigned a definite ontological status to each, or else create some abstract structure -- linguistic or conceptual -- which successfully

enumerated all entities which were describable in terms of the language, or discernible within the conceptual scheme. I assume one could never fully establish a complete physical enumeration nor -- even if this were possible -- could this be performed without reference to an abstract structure of linguistic and/or conceptual distinctions. Thus we need merely consider such a structure. Let us assume that it provides an exhaustive enumeration of all possible entities. (Were this not the case, one could never show that a particular ontology was comprehensive.) Let us assume too, given such a list of entities and types of entities, that one could check the ontology for comprehensiveness in respect to this list. But such a list represents the conceptual and/or linguistic distinctions -- the categories and types -- which hold within our scheme, or whatever scheme is used. If we were to prove that no ontology in any other scheme could be as comprehensive, strictly speaking we mean 'comprehensive in respect to the distinctions that we establish'. One could not argue for the uniqueness, simpliciter, of such an ontology, but only for its comprehensiveness in respect to the categories, etc. which hold within the scheme of the preferred ontology. This point is fatal to any argument, established within one scheme, which attempts to show the absolute comprehensiveness and, a fortiori, truth of the ontology it contains. And I believe, no matter what other criteria one might employ to establish such a strong uniqueness for a given ontology, that any such criterion would also be scheme-bound -- and as such ineffective.

Further, and closer to our present point, a similar objection can be made, within a scheme, to the assumption that there may be one most comprehensive ontology within it. By this I mean that even in the hypothetical case we are discussing, we may have granted too much in assuming such a comprehensiveness. Let us look more closely.

One can, as we have above, assume the self-consistency of a conceptual scheme, i.e. that the totality of statements contained in a full description of the concepts in force, together with their systematic consequences, be free of contradiction. For, although the historical record may belie this, nothing intrinsic to the notion of concepts themselves, forced us to deny this possibility. On the other hand, we have argued, the comprehensiveness of an ontology can be established only in respect to a theory-laden enumeration of entities. And it is a most atypical conceptual scheme which permits only one possible enumeration of entities recognizable in terms of the scheme. But, lacking this assurance, we cannot rule out a priori the likelihood that different ontologies may each claim to be most comprehensive, in terms of different enumerations sanctioned within the same scheme. (We have, for instance, seen how Aristotle employs different taxonomic criteria, according to his needs and interests.) Thus, although possible, the assumption that there is one most comprehensive ontology within a scheme, is improbable.

One might, of course, demur and insist that to the extent one type of enumeration is employed in one theory and another within another, each can be said to be in force within different sectors, or parts, of the same general conceptual scheme. In such a case the above argument does not hold. But then we cease to consider a scheme, as the total body of conceptual truths one accepts as true at a given time, and conflate this notion into that of a theory. (For we can assume a theory to be

self-consistent, comprehensive, and perhaps even complete.) I prefer, however, to consider a theory as part of a conceptual scheme, and not identical with it. A theory is distinguishable from a scheme, inasmuch as it takes certain statements sanctioned within the general scheme (i.e. propositions whose truth is possible), and asserts them to be true. In this way atheism and theism are theories established within the same general conceptual scheme.

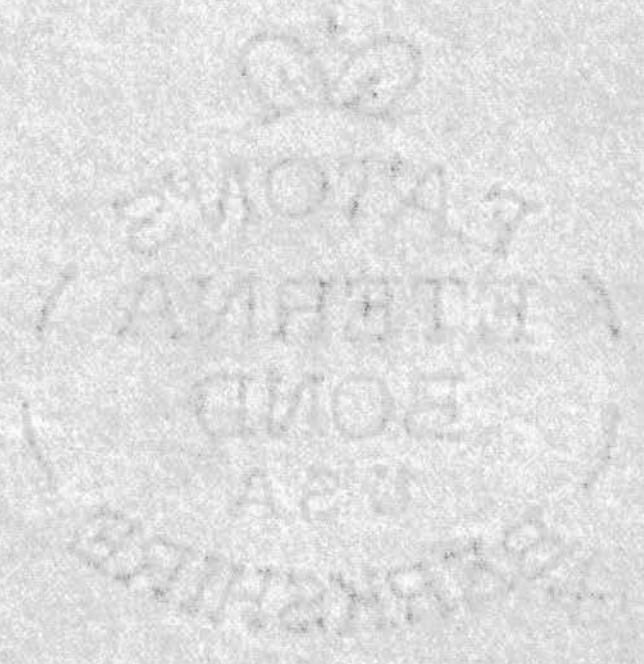
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Similarly, we recall that if a statement is warranted within a scheme, the source of this warrant is either lexical, conceptual, or logical. Thus, if one considers existence-statements to be informative about the extra-conceptual, one cannot in general expect existence-statements to be fully warranted within a scheme. So, as noted earlier, two or more mutually incompatible ontologies may generally be sanctioned within the same scheme, and thus neither may justify its claim to be unique.

For we can imagine that some existence-ascription, 'p', is possible within some scheme. (E.g. 'p' may stand for 'God exists', so that 'It is possible that God exists' is true within some scheme.) But then another statement of this same scheme, i.e. 'not-p' is also possible. As we have already noted, many if not all existence-ascriptions are not theory-free observation-statements. Thus, by the above, there are no absolute constraints, either conceptual or extra-conceptual, to the assertion of 'p'. And there may be good reason to believe in the truth of 'p'. For instance a theory containing 'p' (in which 'p' is asserted as true and not as merely possible) might successfully order otherwise inexplicable features of experience. But by the same reasoning others might find the assertion of 'not-p' equally important. Thus although



the advocates of two incompatible positions might be in full accord  
that only one of these is correct, who is to show -- and with what means --  
that it is his?



. . . .

#4. All of the preceding analysis has been focused in one way or another upon the claim that some existence-statements, or some body of such statements, can be known or shown to be true. Our study, in each case, has shown that no such propositions can be described as categorically true, and that even a conditional ascription of truth to these must be severely hedged with further restrictions. 'But surely we know what exists' is the intuitive response to these conclusions. 'And if your results were to be accepted, it would follow that a statement in one scheme, e.g. 'God exists' can be said to be true within it, and its negation also said to be true within it or another. This is an absurd conclusion.'

It will be the burden of the ensuing sections to show that this conclusion, although legitimate, is not absurd -- and that the judgment of absurdity is either based upon an illusion, or unwarranted. We wish to show that not only are existence-statements neither categorically provable nor intuitively certain, nor even generally conditionally provable, but even further that we may be forced to countenance that a proposition such as 'God exists' may be considered as true in terms of the data, and the concepts in force within one scheme, and also considered as false in terms of the same general stock of data, and the same concepts. The first part of our analysis, the discussion of the illusion, proceeds as follows:

i: The above objection cannot be justified by a reference to what is generally the case: it need not be physically necessary for one to say of any two propositions, such as the above, that one must be false. ii: Turning to the conceptual, we note that 'false' and 'true' are systematically misleading: in certain cases it is quite legitimate to say that two

apparently incompatible propositions, such as the above, are both true.

iii: The confusion, underlying the objection we are studying, arises when one disregards these features of alethic appraisal: Either 'God exists' is true' or its negation is true', may be just bad logical grammar... We proceed now to the details of this argument.

i: Let us recall our earlier discussion concerning the principle of contradiction. Although this proposition, together with all valid theorems of classical logic, appears as part of our customary logical apparatus, the success of the application of logic to our descriptions of what is the case does not imply that the laws of logic reflect the structure of the extra-conceptual world. It is physically possible that neither component of the logically impossible proposition: a is F. a is not-F' be false.

One might try to reject this possibility outright, contending that the totality of true statement cannot <sup>but</sup> be self-consistent. Indeed, it is probably part of our notion of truth that the totality of all true statements is self-consistent. And this belief not only reflects a feature of our conceptual scheme ~~but it shows more than this~~ it shows more than this. Specifically, the world must be so constituted that we can arrange to describe things in such a way that the laws of classical logic -- and the associated notion of truth -- are applicable to the statements about it. But this still does not permit us to infer that, if we were to change our concepts and rules, no other notion of truth might then be applicable.

For, as we have noted earlier in connection with rules, a rule is present only when it is physically possible to do something also some other way. There is no rule to say we must comply with the law of gravity, nor to tell us to feel pain when our finger is burnt. One just does.

Now if we consider the abstract structure which can be associated with a concept as a sort of super-rule which, in any application of the concept, sanctions one to take certain statements and to replace or conjoin them with others, we may also say that any concept -- including that of truth -- establishes patterns of entailment which could also be established in another way. Thus -- although it is certainly a characteristic of our logic to proscribe the conjunction of two incompatible statements -- we cannot claim a priori that things are such that it is physically necessary for the totality of true or correct statements concerning them to be consistent. In short, we cannot argue from our experience of the world that, even if its truth is unknowable, 'God exists' is true or false, as the case may be, but not both.

ii: It is of course, nearly inconceivable to us that any two mutually incompatible propositions can both be said to be true of the same object or state of affairs at the same time. This is (perhaps) absolutely the case whenever the statements concerned are theory-free. (And to extend this discussion, unless stated otherwise, we can also consider low-order descriptive statements to be included within this same rubric. By these latter I mean observation-statements such as 'The black mark is at 3', 'The water has turned blue', 'The light is on'. In other words, statements which demand for their expression only those conceptual abilities which we assume are present or latent in all human cultures -- and are such that adherence to the beliefs of a particular conceptual scheme does not bias the results of the observations they describe.) And because of this belief of ours that theory-free statements brook no concurrent assertion of statements incompatible with them, we feel compelled to

reject the possibility that any pair of apparently mutually incompatible statements can both be said to be true. However the link between the first belief (applicable to theory-free descriptions) and the general conclusion is not as self-evident as it seems. It will be the task of the following paragraphs to discuss the confusion underlying this pseudo-conclusion. Briefly, it is customary to consider that the truth-value of a statement is the same irrespective of the manner in which it is assigned. We shall -- i.e. True or False as the case may be -- argue that although it is the same/it is not identical, and any inference based upon the presumed identity of all truth-values is unwarranted.

To illustrate this let us consider a typical proof. We might find that its premises include definitions, descriptive statements, and conceptual propositions. For example, within Aquinas' proof that God (as an Unmoved Mover) exists, the Deity is defined as an Unmoved Mover, this is true by definition; nothing in motion is said to be the cause of its own motion, this is a conceptual truth within Aristotelean-like systems; and lastly, Aquinas observes, presumably on the basis of experience, that there is motion. But for the purposes of his argument, however variegated the assignments of truth to its premises may be, all that Aquinas requires is that they be true.

Similarly, in arithmetic the sum of  $2 + 2$  is considered equal in value to the successor of 3. Yet  $2 + 2$  is not identical with the latter. For if it were, anything that one could say of  $2 + 2$  could be said about the successor of 3. And this is clearly not the case. (E.g./In the former:the sum function, applied to the number couple (2,2), yields the value of 4; in the latter:the successor function, applied to the single operand, 3, yields 4.) In other words the 4 = to  $2 + 2$  and the 4 = to the <sup>we say</sup>

successor of 3, although alike in value, are unlike in terms of their construction. As a matter of convenience, it is possible in most cases to overlook the difference in origin. But this does not mean that we can consider them identical.

Let us apply the above distinctions to the truth of statements. Parallel to the case of numbers, we can employ various assignments of 'true' to propositions and consider them as equal in value. All truths are true. But we must not overlook the fact that these different types of truths -- determined in different fashions -- are not identical. For instance we do not peer through marriage registers to determine whether it is true or not that bachelors are unmarried men. With such statements, true by lexical convention, we need merely consult the dictionary. But then we do not consult the dictionary to determine whether it is true that our shoes are tight: the feeling of discomfort is sufficient. And again, we perform neither of these types of actions to determine whether it is just to punish the innocent. The concept of justice that we hold tells us 'No'.

The difference in determination is of more than trivial concern. There may, for instance, be a culture in which 'bachelor' is used to describe any man who still has not fathered a child; and there are concepts of justice, say, that of the military in Vietnam, in which it is considered just to annihilate the innocent. Any assignment of 'true' to statements describing the above is evidently scheme-bound. But in any culture, and we suppose at any time, the truth of a low-order observation statement, such as 'My shoes are tight' is scheme-free.

There is then this significant difference among these various types of truth assignments -- one which is glossed over when we consider

them equal in value. In only one of these do we consider it impossible to assert that a is F and a is not-F about the same thing at the same time. Only the truth of theory-free descriptions, if true, does not vary from scheme to scheme. In the other cases, i.e. in respect to the lexical or the conceptual, it is quite possible to say that two apparently incompatible statements are both true. There is no paradox here. In these latter cases one need merely specify the language or the conceptual scheme, or part, in which each holds, and the specious aura of incompatibility soon vanishes. In the first case, and only in the first case, an at least tacit reference to such a scheme is of trivial concern. In all other cases it is mandatory. Any such omission is ungrammatical -- and any inference based upon such an omission is nonsensical.

iii: In the above we have considered pure types of statements. But a theory, and its conclusions (for instance the assertion that God exists), as above noted, generally combines various types of propositions within its premises. Now how is the truth of such a theory to be judged? Let us assume the conclusion of the earlier chapters, that the truth of such premises depends ultimately upon the truth of theory-free descriptions and upon the conceptual. Let us assume now that two theories contain incompatible conclusions, as for instance theism and atheism, and that whatever theory-free components they may contain, if any, are unquestionably true. Let us now assume that the conceptual statements within the theories are true of the concepts in force respectively within the different schemes, and each is consistent with all statements contained in a full description of the concepts of its scheme, and of its consequences. Still the theories are mutually incompatible. Were there a theory-free description which provided a counter-instance to some consequence of one of the theories, one

might then refute the rival position in terms of it. But we have argued at length that in general there are no such refuting premises. Further, as argued in i), there is no physical necessity to ban the appearance of incompatible theories. Then what is left? A theory containing only conceptual premises can be no more than conditionally true. But if a theory contains mixed premises, some theory-free and some conceptual, it can be said to be true only inasmuch as its premises are true. Thus even a mixed theory can only be considered as conditionally true. Given these assumptions, we can say of a given theory or of statements contained within it, that it is true within a particular scheme. But we cannot say that it is true, simpliciter. Any such claim is as incomplete as saying: 'Rot' means 'red'. (To make the latter a statement we must add: 'Rot' means 'red' -- in a particular language, i.e. German.) Similarly we must specify in the former: The theory is true in a particular conceptual scheme.) Without further specification, neither expression makes a statement. And if they purport to do this, as any reference to the truth of theories, simpliciter, purports -- they are nonsense.

The confusion underlying such a claim arises when one applies 'true' to theoretical statements in the same manner -- i.e. without the mandatory reference to the scheme in which the assignment is made -- as when one uses 'true' in respect to theory-free statements. It is this which provides a specious warrant for the belief that it is meaningful to ask, without reference to a particular scheme, whether or not e.g. the statement 'God exists' au fond is true.

This would be a trivial conclusion if concepts never changed. But if we abandon the notion of unchanging concepts and with it any reliance



upon a categorical ascription of conceptual necessity -- as it seems abandon it we must -- then there is no objective manner of determining the truth of mutually incompatible, self-consistent, physically possible theories. One will be true and known as true within one body of concepts in and/terms of the practices they sanction, another within another. Nor, as we have noted, can we even establish a scheme-free appraisal of the relative plausibility of rival theories.

There remains the objection that theories and their conclusions are true somehow irrespective of the scheme in which they are stated. But if this is based upon the analogy between the truth of theory-free and scheme-bound propositions, it is illusory. (Again we reach the intuitively puzzling conclusion: we cannot even know, in any bedrock way, what exists and what does not exist -- except in terms of the conceptual scheme we hold. This conclusion can be extended. For as in the example, p.241b, the same scheme may warrant both 'p' is possible' and 'not-p' is possible', and thus permit the development of theories containing 'p' and 'not-p' respectively.

#5. Let us now consider what we trust is the last defense of the classical position. For we have shown that the belief in the categoricity of proof is unfounded, that in general proof -- at best -- is conditional, and that sanctioned theories of existence, even within one scheme, need not be unique. We have argued more recently that not only proof but knowledge of these truths is conditional. So all that is left is the assertion that there are unconditional verities, however unknowable and unprovable they may be as such. We turn to a defense of this claim.

'You have argued' some realist might claim 'that once we distinguish between the types of truth-assignments, it becomes clear that only the truth of theory-free descriptions can be said to remain invariant through

changes from one conceptual scheme to another. And from this, on the assumption that the truth of what you have called 'mixed' theories depends upon the truth of its components, you have concluded that it is meaningless to talk about the truth, simpliciter, of any theory. So much I grant. But you have at the same time (at least tacitly) assumed another type of distinction between truths, and in terms of this latter your conclusion does not follow! For instance you have said that a conceptual statement can be said to be true when it is part of, or follows from, a full description of some concept in force. You have also said that any description of a concept, if it is correct, is true of the concept. (In this way, e.g. it is true of the concept Phlogiston to say that phlogiston is present in all flammable materials. Of course no one holds this concept now, and so we do not say that this statement, although true of the concept, is true.) So, if you will permit me to express your terminology more clearly, you wish to say that a conceptual statement 'p' is true, in terms of a particular scheme, when 'p' is part of, or follows from a full description of a concept in force, and this description is correct; i.e. 'p' is true, inasmuch as 'p' is true of a concept in force.

'Now let us look at this use of 'true of'. You say that a conceptual statement is true of a concept when it supplies a correct description of the concept. But you also say that a theory-free description is true when it provides a correct description of, say, some state of affairs. Then these uses of 'true of' and 'true' are alike inasmuch as both can be replaced by 'correct'. Further, and closer to my point, the value of both is invariant in respect to changes in conceptual schemes. A description which is true of Phlogiston in the heyday of

this concept is no more nor less correct than it is today. (Admittedly, unlike pure theory-free descriptions we must have a particular conceptual scheme in terms of which we can understand, or learn about, or use a concept. But what is scheme-bound in this case is not the correctness of the description, but our knowing of the concept. And that is another matter.)

' In this way whenever a concept provides a conceptual structure in terms of which some complex state of affairs can be correctly described, then the theory making use of these relations can be said to be correct, i.e. to be true as a description of the state of affairs in question. And although the knowledge of this correctness is evidently part of some conceptual scheme, and as such conditional, the correctness of this description is not.

' You might wish to point out that such a theory can be expressed in, and as such be significant, only in terms of particular languages. Well and good. But if we assume, as most linguists do, that all sophisticated languages are capable (with varying ease or difficulty) of expressing the same stock of thoughts, then this reference to language becomes trivial. We are free to talk significantly about the correct description, and need add no further tags concerning the language in terms of which it is correct.

' So we may continue. We can now claim that there is one correct description or theory, or else a set of mutually compatible theories, concerning any entity or complex of entities. In most cases it contains or is based upon both true theory-free statements and conceptual statements

true of concepts. The mixed theory so formed provides a correct description of the state of affairs in question. And it is correct inasmuch as the nexus of interrelationships established in the theory is instanced in the state of affairs to which it is applied. It is a description of this kind which we call 'true'. We are cognizant that we can never establish such a description, nor demonstrate its correctness, except in terms of the scheme we employ. In this way we admit that the correct description, in any unconditional sense, is both undemonstrable and unknowable. (And here I echo Popper's view of the scientist who "can never know for certain whether his findings are true". This appears in Section VI of his article "Three Views Concerning Human Knowledge". Popper likens a scientific theory to a genuine conjecture, such as Goldbach's in the theory of numbers, which as Popper says: may well be true in fact, even though we do not know, and may, perhaps, never know, whether it is true or not". But its truth, i.e. its correctness, is nevertheless absolute. For instance, when we say that among two statements such as 'God exists' and 'It is not the case that God exists' one and only one of these is true, it is this absolute sense of truth which we employ. This claim is not based upon any confusion. We say this because one of these statements, and only one of these describes what is the case.'

#6. This objection is well taken, and certainly it is intuitively natural to consider all statement-like propositions as true or false. But there are some questions we should like to ask about the above. According to this realist's exposition, it is pointless to suggest that he show us such absolutely correct descriptions. For, by hypothesis, we could never know them as such. But it would be interesting to inquire whether his position is itself absolutely true. For if it were not, then the

assertion: There is a unique statement, or set of mutually compatible statements, which correctly describes what is the case 'might be true in terms of one scheme, false in another. A very curious realism.

Let us assume the realist above answers that his position is absolutely true. But on what grounds? Perhaps as in the case of his alleged absolutely true descriptions of what is the case, the truth of his position is also undemonstrable. But then how is it known? It certainly does not appear self-evident, even after reflection. (For I see in it no more than what I might call the 'pathetic fallacy of the logician': the expectation that the world conform exactly to one's canons.) If this is so, the correctness of the absolute claim must then be demonstrable in some way. For otherwise if it is neither demonstrable nor self-evident, then it must be known to be correct, if it is known, in some very mysterious way. But as such, this position becomes an article of faith.

Can it be demonstrably true or correct? Unless this position can be shown to follow directly from the axioms of logic -- and it is most unlikely that the axioms of logic can provide any information about the extra-logical -- it can be shown to be true only in terms of particular schemes. And certainly we need not look far for schemes incompatible with any general statement of the realist claim. For, as Duhem has argued, from the time of Plato's doctrine of saving-the-appearances through to the beliefs of Galileo's contemporaries, conceptualism -- and not realism -- provided the dominant position within the current of European speculation

concerning the physical world. See Duhem (1) (By 'conceptualism', in this sense, I refer to the belief that theories do not represent states of affairs, but are constructions which serve to link together observed regularities.) In view of this the realist, if he asserts the absoluteness of his own position, can say that it is diachronistically warranted only in respect to statements which do not refer to the physical world. But not even in respect to all of these. For a (mathematical) intuitionist would not concur in the realist's assertion that all unprovable propositions must be true or false. Thus the only kind of statements left, it seems, are those said to be "metaphysical". But even here his assertion is indefensible, if it is to be absolute. For one need only show that some self-consistent position, incompatible with that of realism, is also applicable to these statements. (This we shall soon do.) if this can be demonstrated, the realist cannot maintain that his position is uniquely warranted in all schemes. Instead he is forced to accept that it too is conditional and that it represents one metaphysical option, one possible viewpoint amongst several. By his own assumption he cannot show us any unconditionally true statements. Nor (if our ensuing argument is correct) can he show that his is the unique position, even within our present conceptual scheme. And so his objection -- like the statement 'God exists' -- may very well be sound in respect to his own premises. Yet, by the same token, it need not trouble us inasmuch as it is bound to these premises, and lacking in generality. -- but this we must prove.

Before proceeding, let us get our bearings. For the course ahead may be curious. We have argued not only that the assertion of any ontology is scheme-bound, but further the assertion of any meta-ontological

position, such as realism, is also scheme-bound. And this applies equally well to the present conclusion: The assertion -- that the assertion of any meta-ontological position is scheme-bound -- is itself scheme-bound. Our conclusions are true or correct, if true, etc., in respect to the scheme and assumptions with which we have worked. But since these of ours, I trust, are closely tied to those of logic and the requirements of proof, if they are not guaranteed uniqueness in this respect, they share with logic a passport which permits them to travel without hindrance and restriction through a large number of different conceptual schemes. Thus this conclusion concerning the scheme-bound character of existence-statements, and meta-existence statements, can bask in a relative truth -- that it is true in many schemes. Given our assumptions -- and given our present knowledge of the incompleteness of complex self-reflexive structures -- I do not think it possible to claim more than this. To continue, we have been examining the grounds for the realist's assertion that since truth is one all correct ontologies must be mutually compatible. We have suggested that this claim may be based upon nothing more than a confusion which arises in applying the criteria of truth-assignment for theory-free descriptions to theories, and as such illusory. We have also argued that any appeal to physical necessity is unfounded. Thus the argument, perforce, must be conducted in respect to the conceptual. It seems, the only possible strategy left open to the realist is to argue that his belief is not illusory, but warranted. We have cited evidence, albeit briefly, to suggest that the realist position cannot claim to be uniquely warranted in respect to some conceptual schemes to which we have access. Thus such a position cannot claim any exclusive warrant for its

general correctness, in terms of these schemes. It is our purpose now to present in terms of our present scheme, a sketch of a viable alternative to the realist position, that is to say: alternative and incompatible. We need not establish that this latter is warranted, in the sense that it follows as a consequence from conceptual statements true within our present scheme. We need only show that it is compatible, i.e. that it is consistent with them. For if this is the case, then the realist cannot claim that his position is warranted, and as such uniquely true or correct.

To show this, we consider in the following a peculiar but important class of propositions. These are all such that they need merely be unfalsifiable to be considered as true. But if there are such, it follows we cannot guarantee their uniqueness, nor their compatibility with other "truths". For if other propositions incompatible with these are also unfalsifiable -- then they can also be considered as true.

The reader may have the distinct reaction that something peculiar is happening. Well let us look at the details.

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#7. There are certain very general propositions which enter into discourse, which appear to be informative, and consequently seem to be appraisable as true or false. For instance (if we consider physical space) one such proposition might be Euclid's sixth postulate that only one line parallel to a given line can be drawn through any point. So too is Newton's First Law that all bodies remain either at rest or in uniform rectilinear motion, unless compelled by impressed forces to change their state. Let us also include within this group of prima facie statements the assertion by Aristotle, as in "Categories" 5, 2a 34 ff. that concrete individuals are the primary substances. Further examples might



include Kant's dictum, noted earlier, that the quantum of substance remains constant in all change; or Einstein's postulate that the speed of propagation of light is invariant in all inertial systems; or, on a different plane, the Biblical proposition that God made man in His image; or Buddha's assertion that desire is the source of all suffering; etc.

The above propositions may well appear to form a curious company. Nevertheless they display several important common features. First (singly or in company with others) each of the above can be considered, in a way, a "first principle", inasmuch as each warrants or sanctions the assertion of other important statements, which could not be so asserted without them. We will show this by citing various examples. Euclid, for instance, attempted to eliminate his postulate of parallelity, but he found this impossible. And for good reason, for as we now know, it serves to define certain necessary characteristics of Euclidean space. Without the above postulate, or another similar to it, Euclid could have proven only a fragment of his theory. In the same way, each of Newton's three laws, together with the associated definitions, are necessary in the development of his system. If, for instance, the first law, together with its systematic consequences, were to be removed, one could not calculate even the path of a free-falling body -- at least not without some ad hoc reinstatement of this principle. Or again, as noted earlier, Aristotle's belief in the ontological primacy of the concrete individual is one of the most characteristic elements of his thought. Let us see how basic this is. If there were no concrete individual there would be neither an ultimate subject of predication nor a ground of properties. And further (judging by the position Aristotle assigns to singular propositions, as in PR AN I-1 24b 28) propositions concerning the individual provide the formal basis for universal affirmatives and negations. Thus both his theory of pre-

dication and of syllogism would be impossible in their stated form if reference to such individuals was not sanctioned in this way. Or again, in respect to Kant's dictum -- and the statement of the principle of conservation of mass to which it refers -- we have only to consider how vast a body of chemical and physical theories would become meaningless if the various conservation principles, whether of mass, energy, mass-energy, etc. were not part of the appropriate conceptual scheme. For without some underlying principle of conservation, there is no assurance at any time that the sum of quantities involved in a chemical reaction will be equal throughout the reaction; or, if mass were not constant, one could not determine the physical forces present in a given action. And (outside of classical mechanics) even the Heisenberg Uncertainty Principle, of fundamental importance to quantum mechanics, itself depends upon the maintenance of the law of conservation of energy. And again, Einstein's conversion of these two conservation principles into the one of mass-energy, bespeaks the place which some such proposition plays within any actual physical theory. Or, to change the plane of reference, without the Biblical association of God and man as His image, the fundamental notion of a covenant between Deity and man would be meaningless. (One does not covenant for instance with a lump of clay.) Similarly, Jesus' claim to be the Son of God, becomes impossible in any literal sense, if both Deity and man are not conceived of in similar terms. And again, if desire is not considered the source of all sorrow, suffering, e.g. as in sickness as it is in Buddhism, cannot be considered to be due to a desire for life. But if this premise is accepted, one's previous attitude towards all suffering and all desires

becomes radically altered; and so do the statements one makes concerning them. Thus each of the above propositions warrants or sanctions the introduction of other statements which, were the initial propositions not present, would neither be sanctioned nor warranted as the case may be. As observed much earlier, this is in a way similar to that which happens, within a scheme, when a new concept is introduced.

Further, each such proposition is <sup>either in principle or</sup> unfalsifiable, at least for a significant length of time. In what physical situation could one ever show whether or not there were one or many parallel lines passing through a given point? Or, if we may quote Hanson again, (this time in respect to Newton's system): Apparently a statement of the first law needs no explanation, because it could not be false...The law encapsulates and extrapolates much information about events, yet it seems beyond disconfirmation: it could not but be true" Hanson (1) p. 95-6. In fact only recently, when for the first time rockets were developed powerful enough to escape the earth's gravitational field, was any conclusive testing of this law even possible. (Up till then any trajectory observed was subject to the forces of terrestrial, or other, gravitational fields.) And again, how is one to show that Aristotle is incorrect in his belief in the ontological primacy of concrete individuals? Surely one cannot point to say, a Platonic Form, and show that Aristotle is in error, if he is. All that one can do is to reason on the basis of some common stock of generally accepted principles and the generally theory-laden data of experience. But in view of the uncertain status of nearly any of our common beliefs, the same argument that might be used to refute the Aristotelean claim might also be

turned against the user. A Kantian, for instance, might claim that even if the concrete individual were the ultimate subject of predication, there is no warrant to assume that it is also ontologically primary. For the usual subject of predication, the Kantian would argue, is the phenomenal object, and certainly whatever is ontologically prior is not mere appearance. 'But', an Aristotelean might reply, 'what is most knowable in the object, although gained through sense-experience, is the universal. And since this is specifically what makes the object what it is, we perceive more than an appearance, we grasp its essence.'

Let us break off the discussion at this point. I think it is clear, that as long as the above propositions are considered to be important, they are like Achilles nearly invulnerable to effective overthrow. This is the case for at least two reasons. First, they are such that refutation in itself is initially difficult, or inconceivable. Second, the entire theory which contains them is built upon the assumption that these propositions are true, and thus the theory in its development, actively resists or even prevents any decisive falsification from occurring. Any counter-evidence to the claims that these propositions establish, thereby becomes a threat to the entire theory. And wherever the theory is in general successful, any such putatively refuting premises are either excluded from consideration as insignificant or -- where this is impossible -- explained away. These latter defenses can often be performed in terms of the elements of the system as it stands. For instance, whenever fresh data proved the inexactness of the existing Ptolemaic theory, additional epicycles were added to account for this. (And perhaps we see a similar phenomenon today in the proliferating number of elementary particles

accepted into nuclear physics.) When this is not possible the existing system can be revised, as for instance Einstein modifies classical field theory and introduces the notion of space-time in order to maintain the postulate of the invariance of the speed of light. Or, a modern defender of the Biblical viewpoint will reinterpret the text of "Genesis" as a symbolic account, and so save what in his view is the essential feature of the doctrine.

#8. But whatever the situation (or the techniques involved) might be, the salient feature of all the above is to be unfalsifiable. This means -- in terms of the knowledge present at the time and the scheme in force -- that these propositions are logically and/or physically possible, and no disproof of their claims exists. From this two consequences follow. If they are merely possible, in one sense or another, then their negations are also generally possible. (We will soon return to this point.) And if they are unfalsifiable, none of their consequences are falsifiable. Thus if they are introduced into a theory and considered as true, without a qualm one can consider the entire theory also as true, irrespective of the alethic status of these propositions. For if the goal of theoretical investigation is to establish a set of powerful, mutually compatible and comprehensive structures in terms of which the observed regularities and known and discernible features of experience are ordered, as long as the structures are successful, there is no need to investigate the "truth" of all their parts.

For all that we need expect of any theory, or of the conceptual structure in terms of which it is established, is that it be consistent, consistent with itself, consistent with results of the application of

other concepts in force, and consistent with all the raw data both known and discoverable which experience may provide. All that we must demand of such a totality of statements, is that they be unfalsifiable, either directly or in respect to their consequences. And if they are consistent as above, they are unfalsifiable. (Conversely, if or as soon as they become falsifiable, consistency is destroyed, and the theory as stated ceases to be tenable.) And further, if a theory is successful in tying together ever more comprehensive aspects of our experience, this in itself is sufficient to vindicate the wisdom underlying the choice of the initial assumptions upon which it is based. The realist's insistence that each proposition be true in his sense, is -- from the point of view of the requirements of any explicative structure -- an unnecessary complication.

But to be unfalsifiable, even at a particular time, does not mean to be not-false; unfalsifiability does not entail truth. Admittedly, we are free to consider unfalsifiable propositions by a sort of brush off as true within a scheme, the way we consider black -- i.e. the absence of light-- as color; or the empty set, a set. For as long as such discourse-simplifying conventions encounter no difficulties, we have every right to use them. And as a matter of convenience we do...But just as unfalsifiability does not imply truth, it does not imply uniqueness.

Thus, also as a matter of convenience, we can consider other propositions, incompatible with the former, as true within another scheme, or part. There is no more difficulty here than in saying 'rot' means 'red', and 'rot' means 'decomposition' -- as long as the scheme/<sup>or part of a scheme,</sup> in terms of which the propositions hold, is specified. We do however muddle everything gloriously when we de-relativize these and ask ourselves: How can a color be an action? How can 'God exists' be true and not true? How can space

be Euclidean and non-Euclidean?

. . . . .

#9. But, strictly speaking, I think any discussion of the truth or falsity of unfalsifiable propositions is irrelevant, and (again) perhaps even meaningless. The propositions we have considered, and others like them, are introduced not to describe nor to be true nor false, but to make the assertion of other propositions possible. They are, as it were, the conceptual equivalent of the standard meter stick: they represent a decision we have made as to how we are to describe the world. The propositions are prescriptives which sanction the truth or falsity of the statements which follow from them, in much the same way as the rules of logic sanction the validity of theorems derivable from their corresponding schemata.

If, for instance, we decide to describe the world in terms of a particular theory of motion, as Aquinas does then it may very well be the case that 'God exists' is thereby true -- where 'God exists' is not a theory-free observation scheme. And if, as Findlay argues, God must have all necessary properties, and we choose to consider the logical to be the paradigmatic form of the necessary, then it also probably follows that it is true to say 'It is not the case that God exists'.

And, according to this view, these statements may perhaps both be said in a way to be true -- even if one were to achieve some extra-human faculty which permitted one to know things in some manner untrammelled by the appanage of sense-experience and the complex subsequent appraisal of its evidence. The realist assumes (in terms of some common set of meanings) that 'God exists' when asserted within one theory correctly or incorrectly describes some state of affairs, and if this description is correct, its negation, even in terms of another theory must be false. And it is a comforting faith. But again

it puts one into debt to one's assumptions. For what if the "real" structure of experience is less determined than the conceptual structures which we establish, and because of our needs, must establish? What if God, for instance, were neither in the universe nor not in it, but proved to be like the value of an incompletely expressed equation, an entity which comes into prominence when we place parentheses in one place, and fails to appear, when these same parentheses, or some other marks of punctuation are placed someplace else? Parentheses, of course, have nothing to do with objects. These merely help to clarify our talk about them. But is it to be excluded that the propositions, 'God exists' or 'this table exists', etc. are not of the same type?

Michelangelo, within a sonnet writes that the form is already in the stone, and it is his task to bring it out. The realist is of the same persuasion: for he believes that our conceptual structures are strongly determined by the pre-existing reality. There is nothing to be decried in making an assumption of this kind. But if an alternative position can be established, without this assumption, then the realist cannot claim any unique warrant for his own.

I find nothing inconsistent, either with well-attested facts or with our conceptual scheme, within the position concerning unfalsifiable propositions sketched above. Admittedly it is incompatible with the claims of the realist and with some of our intuitive beliefs. But neither of these seem to have an unconditional warrant, even in terms of the statements and concepts we would all accept as true or correct.

Thus if it is possible for us to say in terms of our conceptual scheme that the key statements of an ontology are prescriptive, one cannot claim that there must be one set of mutually compatible descriptions of



what is the case. (If the reader has any doubts concerning the formal argument upon which this conclusion is based I append a proof of this.) Nor can one avoid this conclusion by introducing the point of view of the different descriptions as an explicit part of the description. For instance, one might say: In terms of Aquinas' assumptions, 'God exists' is true' and 'In terms of Findlay's assumptions the existence of God is disprovable'. But these are not statements about God, but about our descriptive and conceptual apparatus, and what can be proved in terms of it. To say that 'God exists' is derivable from some premise is not to say that God exists.

Our final task is to remove the 'if.' which appears in the beginning of the above paragraph, i.e. to argue, at least persuasively, that the fundamental ascriptions of existence are neither true nor false, but prescriptive. And this will be the burden of Part III of this thesis.

#10. But first let us append the proof mentioned above that if some position is possible within a given conceptual scheme then no position incompatible with it is warranted within this same scheme. (This demonstration introduces no new material and the reader may, if he wishes, continue directly through to the final short section of Part II.)

We wish to show that any position, R, is not warranted within a scheme, if a position Q, incompatible with R is logically possible within this same scheme. To demonstrate this, we specify the following conventions:

Convention i: The conjunction of statements, cs, which establish a full description of a particular conceptual scheme, can be considered as necessary within the scheme,

and so introduced into a proof as necessary. (The soundness of such a proof is evidently restricted to that of the scheme in question.)

Convention ii: A statement is necessary if it is necessary as above, or is an axiom of logic, or is of the form ' $p \supset q$ ' where ' $q$ ' is derivable from ' $p$ ', or is a derivable consequence of any of the above.

Convention iii: The derivation rules are those of the propositional calculus, and - the following two forms of modus ponens for strict implication:

$$\begin{array}{cc} N/ (p \supset q) & N/ (p \supset q) \\ \hline N/ p & \hline N/ q & P/ q \end{array}$$

where ' $N/$ ' is used to express necessity, and ' $P/$ ' possibility.

Convention iv:  $P/p = \text{DEF } \sim N/ \sim p$

Convention v: ' $cs$ ' stands for the conjunction of statements, as in Convention i.

' $Q$ ' stands for the conjunction of statements of position  $Q$ .

' $R$ ' stands for the conjunction of statements of position  $R$ .

The premises, subject to the above conventions, are as follows:

(1)  $N/ cs$

(2)  $P/ (cs.Q)$  i.e.  $Q$  and  $cs$  together are consistent.

(3)  $R \vdash \sim Q$  i.e.  $\sim Q$  is derivable from R.

(4) R is warranted in cs = DEF cs  $\vdash R$

We argue:

- +1 (5) R is warranted in cs Provisional Assumption.  
 (6) cs  $\vdash R$  4, 5.  
 (7)  $N / (cs \supset R)$  6. Convention ii.  
 (8)  $N / R$  1, 7. Modus Ponens for N.  
 (9)  $N / (R \supset \sim Q)$  3, Convention ii.  
 (10)  $N / \sim Q$  8, 9. Modus Ponens for N.  
 (11)  $P / Q$  (11) is derivable from (2)  
 (12)  $\sim N / \sim Q$  11, Convention iv.  
 (13)  $N / \sim Q . \sim N / \sim Q$  10, 12.

We now remove the provisional assumption:

- 1 (14) R is warranted in cs  $\supset [ (N / \sim Q) . (\sim N / \sim Q) ]$  5-13.

Thus:

- (15)  $\sim (R \text{ is warranted in cs})$  14. Indirect proof.

To interpret this, let 'Q' represent a statement of the above positions concerning unfalsifiable positions, and 'R' represent a statement of the realist position. (We assume that 'Q' is demonstrably false in terms of 'R'.) So according to the above proof if Q is sanctioned, i.e. if it is possible for it to be true in cs, then the realist position 'R' is not warranted in cs.

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#11. But before proceeding, let us tidy up a few points which concern the intuitive grounds for a belief in the uniqueness of the realist position.

It may so happen that there is only one dominant set of hypotheses -- or in our more recent terms -- prescriptives which are in force at some time. In such a case it is easy, and natural, to omit any reference to the conditionality of one's conclusions, and to claim that some consequence is true, simpliciter. (When in England, we do not have to preface all remarks by saying: 'I am talking English'.) But when conceptual conflict develops and alternative fundamental theories are about, this ease of utterance is denied us -- as seems generally to be the case in philosophy.

The realist might observe that, even then, one theory generally wins out. Are not its initial propositions then true? (But this is like arguing, Lyndon Johnson was elected President, Lyndon Johnson is the best man for the job.) No, we are less in debt to our assumptions if we say that the success of a theory, like a railroad, makes it easier for everyone to travel along the line that the theory stakes out as its own. Since the rails are there, one uses them, even with misgivings. The labor of making a fresh start and of cutting across the grain of an established terrain often precludes the viability of alternative and incompatible formulations, just as the cost of construction prevents one from having competing telephone lines to serve each house. And even then much of the success of a philosophic position in particular may be based on little more than historical accident and the vagaries of taste. One might argue for instance, that much of our formation is Aristotelean. But this is in part due to the rediscovery of Aristotle in the Medieval period. For a thousand years earlier, the dominant tradition was Platonic. Similarly the psychological hold which the structure of a long established theory imposes upon its users may explain its endurance far more easily than a (perhaps mythical)

reference to the absolute truth, or unique correctness of the statements contained within the theory.

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PART THREE

Existence-Statements, Permissives,  
and the Linguistic Approach



## CHAPTER TEN

### Preliminary Remarks to Part Three

#1. It would be well at this point to look back before proceeding. We started this investigation with the observation, familiar to all, that certain philosophic topics, Existence among them, provide peculiarly recurrent sources of conceptual disagreement. We decided to investigate whether the appearance of these differences of opinion, or at least some of these, might not itself be a legitimate outcome of legitimate philosophic activity. This decision determined the level and focus of our study. To answer questions such as: What exists? or What is the meaning of 'exist'? etc., could not be of direct concern. Rather we asked: What are the general characteristics of existence-statements and in what stratum of language do they typically appear?, and at the same time we hypothesized the presence of certain features, either within such a stratum or within our attitudes, responsible for the enduring presence of some philosophic issues, and among them some concerning Existence.

To answer these questions and to test this hypothesis, we decided to look at theories which attempt to account, in general, for the presence of prima facie insoluble philosophic issues, and for the appearance of mutually incompatible existence-claims, in particular. We assumed (1) such theories must presuppose that existence-statements, or the language in which they are expressed, have certain characteristics, and (2) an analysis of the extent to which the presuppositions of these explanatory schemes are satisfied -- or satisfiable -- would provide a synoptic view of the tangling maze of ontological issues.

Two such theories engaged our attention. The first, typified by Aristotle, we termed the 'classical' approach. Within this view it is presupposed that every "science" contains certain statements which

are necessarily true, and that the truth of these once grasped, confers unshakeable certainty upon the knower. Such propositions are either self-evident axioms (or, in Aristotle's terms, "first principles") or their demonstrable consequences. For convenience sake we considered axioms to be derivable from themselves. This permitted us to say that the classical approach presupposes the categorical (i.e. non-hypothetical) provability of all necessarily true statements. Since for Aristotle there is a science of Existence, there is in particular a body of necessarily true, categorically provable statements concerning existence. If such a body of statements is also self-consistent, obviously then, whenever mutually incompatible existence-statements appear within it, the assertion of one of these at least must be fallacious. But despite this all-too-human error, adherents of the classical approach maintain the truth is there: one, whole, and discoverable. We then generalized this attitude and pointed out that the practice of most philosophers presupposes an at least fragmentary acceptance of some tenets of the classical approach.

An analysis of the presuppositions of the classical approach, in particular in respect to the proof, disproof, and demonstrability of existence-statements, engages our attention. We note that some existence-claims appear to be refutable. But these, it turns out, establish positions which are either self-inconsistent -- and as such ~~are~~ logically impossible -- or else they are incompatible with other statements which for one reason or another are accepted as true. In these latter cases the ontology concerned is conceptually or physically impossible. Noting that the lack of definiteness of most actual ontological positions makes any total refutation of this kind unlikely, we then ask whether logically possible and definite existence-claims can in principle be either categorically proved or refuted.

It is clear, if one cannot claim an unconditional warrant, or necessity, for the truth of one's axioms, that none of their derivable



consequences can be either categorically provable or refutable. So we investigate the different senses of 'necessary' ascribable to any extra-logical premises of a demonstration. Our analyses show that in one way or another the force of any such ascription generally depends upon the conceptual scheme in terms of which it is stated. In other words each is scheme-bound and cannot be said to be necessary, simpliciter. (As for logical premises, we assume throughout this thesis that they are not informative and accordingly cannot in themselves provide adequate premises.) Considering the disjunction 'theory-laden or theory free' to be exhaustive we then turn to analyze the purported necessity of theory-free observation statements. We claim -- and we shall support this assertion in the sequel -- that with one possible exception none of these are of sufficient logical power either to contain or entail existence-statements. (The one exception, the conclusion that something exists, is trivial inasmuch as the predicate logic in terms of which it might be inferred, itself presupposes a non-empty universe.) We also studied, albeit briefly, allegedly self-validating existence-claims and argued that these were either based upon bad arguments or else theory-laden.

It follows, if our argument is correct, that no advocate of the classical approach can introduce adequate extra-logical premises as unconditionally true in the refutation or proof of a logically (and physically) possible ontology. No non-trivial existence-statements of this kind are then categorically provable. This presupposition of the classical approach is not only unsatisfied in actual philosophies but unsatisfiable within our universe and in terms of our notions of logic and of proof, etc. Thus the approach as stated is untenable.

We then studied the claims of weaker forms of the classical approach. The first substitutes plausibility for provability and argues that the correct ontology can still be known, inasmuch as it shows itself to be most plausible. But we pointed out the appraisal of a theory as true, because plausible, is itself scheme-bound, and as such conditional.

Specifically, the force of any criterion of theory-appraisal depends upon the philosophic position in terms of which it is established.

We then discussed the claim that existence-statements are conditionally provable, that their truth can be demonstrated or made known in terms of the conceptual scheme in force at a particular time. The strongest claim of this type, might even try to circumvent conditionality by showing that the premises employed in some ontology are either a common ingredient in all conceptual schemes or uniquely favored in some respects. But given the extraordinary variety of conceptual systems, any attempt to establish this claim as an inductive generalization appears to be impossible in practice. Further there are objections in principle. (For to accomplish this one would have to show that the conceptual patterns of all past schemes were congruent, in this respect, with that of the present scheme. And how could this be shown except in terms of the frames of reference of our present scheme?) Nor could one argue that certain premises must be true in all conceptual systems. For the force of this 'must' itself depends upon the scheme in terms of which it is expressed. And lastly one cannot argue that a particular scheme is uniquely favored; the strength of any criterion of theory-appraisal also depends upon the scheme in which it is established.

A weaker position might claim that there is nevertheless one correct ontology within each scheme, and that this -- in terms of the concepts in force -- provides a correct description of the most general characteristics of existents. But although it is perhaps reasonable to assume that some ontology is self-consistent, the above claim presupposes that the entire conceptual scheme in terms of which it is expressed is self-consistent; and further that this scheme is so structured that it permits the expression of only mutually compatible existence-statements. Although not logically impossible, it seems highly improbable that these conditions are generally satisfied.

Despite the weakened claims in respect to the provability of existence-statements, all the above positions share with the initial classical approach the belief that somehow truth is one: i.e. that there is only one correct set of self-consistent existence-statements, and that these are either true, simpliciter, or in terms of each scheme. And one might still maintain this claim even if one admits the unprovability and even unknowability of the "truth" of all existence-statements. We argued that even this weaker claim may be unjustified. To do this we distinguished between the truth of 1) theory-free observation statements and 2) any other extra-logical statements, whether conceptual, or lexical, etc. Only the former, i.e. theory-free observations, can be said to be true, simpliciter. For indeed it is unlikely that one would countenance two mutually incompatible descriptive statements as both true. But on the other hand, the ascription of truth to conceptual statements depends upon the scheme in terms of which this is established. And in this case there is no essential impediment to the acceptance of different sub-patterns as both holding within one scheme. As for example different types of set theory can be used by different mathematicians. Thus it is logically possible that two theories employing different patterns of conceptual relationships, and containing statements which are inter-systematically incompatible, may both be in force at the same time.

One can claim that they cannot be incompatible -- if one also asserts, as a realist does, that a strong correspondence always holds between each feature of a theory and that to which the theory is applied. We argued that this position, assuming it is logically possible, is not conceptually necessary. To show this we introduced an alternative account. (We argued that this latter is possible in terms of our present conceptual scheme and that accordingly the realist position, incompatible with it, cannot claim any unique warrant.) According to this analysis, the realist position, together with the claim that there is one correct set

of mutually compatible existence-statements, represents then only one position among various alternatives.

Thus (in terms of the assumptions we have made) the truth of no non-trivial existence-statement can be unconditionally proven, nor known with unconditional certainty. Further, if we consider conceptual schemes as they exist at any time, it is unlikely that any existence-claims contained within them may be established for certain even in terms of the given conceptual scheme. And lastly there seems to be no unshakeable warrant for the claim that all such statements within a scheme, if true or correct, are mutually compatible.

Rather, we suggested that the function of proof and disproof of logically possible existence-statements has been misunderstood. The point of rational argument in respect to these, we submit, is not to establish their "truth" but to show that a particular totality of statements, a totality containing propositions of all kinds and encompassing many subjects -- is either consistent or inconsistent as the case may be. It is this study of the interrelationships of one proposition with another, this exploration of the conceptual, lexical, and descriptive consequences of the statements one accepts as true at any particular time, which is typical of one aspect of philosophic activity.

And it is such an investigation of a totality of propositions and their consequences that we have performed up to the present: we have taken statements related to our concept of demonstration, and to a particular concept of concepts, and our belief in the non-informativeness of logical statements, etc. On the basis of these we have argued that any statement of the presuppositions of the classical approach, concerning the provability, etc. of existence-statements, however weakened this claim may be, cannot be asserted if the above set of statements and associated concepts is considered as true or as in force. This is not to claim that the classical approach is false, simpliciter. Rather we maintain --

assuming that the above beliefs are shared by, or acceptable to nearly all our culture-bearers -- that the statement of the classical approach cannot be reached from any of the starting points which we accept. To assert this latter approach under these conditions, even in the weaker forms we have investigated, is either to stake an unwarranted claim, or to fall into nonsense, or both.

. . . .

#2. One weakness of the preceding analysis is its reliance upon a particular concept of concepts. But the whole notion of concepts lay in our path and could not be avoided. I am aware that the explication I have introduced, based upon an idea of Mackay, may have its awkward moments and represent one possible description among various alternative ones. I am not going to argue for its superiority, but it has proved workable. Even if it is not unique, it provides (I trust) an acceptable description of the role played by concepts in discourse. If a concept is a kind of tool, as we have assumed, a concept of concepts is also a kind of tool. And it seems to me that the essential criterion for appraising such an instrument is neither naturalness nor even simplicity, but utility. And as noted above, the theory we have introduced, within our poor sights, has proved workable.

A second weakness of the above investigation is the claim we have made, and only partially substantiated, concerning the theory-laden character of existence-statements. This defect we must remedy. We must show that no usage of 'exist', 'existent', etc. is theory-free. (This we do in the final chapter .)

Another weakness of the preceding analysis is that we have introduced abstractly and schematically, a theory in which certain key propositions concerning 'existence', etc. are not to be considered statements at all, but logical permissives which make the assertion of other existence-

statements possible. This theory was introduced within the course of an argument to show that the belief in the unicity of truth (at least as far as existence-statements is concerned) is unwarranted. For the purposes of this discussion we had only to show that this theory was logically possible, and that accordingly the realist position -- linked to the belief in the unicity of truth -- was not logically warranted. In the sequel we argue for the credibility of this theory. This we do in various ways. First we analyze the language in terms of which ontologies can be stated and show that this language permits the expression of genuinely alternative theories of existence. We then show that the presuppositions of the theory of permissives do indeed seem to be satisfiable in actual ontologies. And finally, we take the results of our earlier analysis of the presuppositions of both the classical and the linguistic approaches, and show: 1) The theory of permissives saves what to us appears to be the most important feature in each. These are (respectively) the belief in the importance of a reasoned study of the consequences of the propositions one accepts as true, and of the felicity of most individual language-games. 2) This theory at the same time avoids the excessively strong conditions presupposed by both the above approaches; their reliance either upon categorical demonstration, or the total felicity of a form of life. 3) Finally, in stressing the role of permissives -- in this case of propositions neither warranted nor interdicted within a given conceptual scheme -- we remove the stamp of 'nonsense' from certain philosophic problems. (For within this view what is asserted as following from a permissive within one philosophy may be denied within another, without a taint of logical impropriety.) This restores to certain parts of philosophy one of its oldest prerogatives: the introduction of novel and varied insights.

We have in the preceding removed the possibility of any meaningful reference to the truth of a theory, even conditionally, even ours. But we can argue, nevertheless, that a theory of permissives (at least

in respect to 'existence', etc.) orders a considerable totality of beliefs, presuppositions, theories, experiences, etc., that we have or hold. And this we shall now do.

The reader will notice that we have shifted our focus. In the earlier chapters we investigated a totality of statements and showed it to be inconsistent. We now take the statements one makes concerning 'existence', 'language', 'philosophic problem', etc. and show (with some modifications of these propositions) a pattern within them.

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#3. This is a good place to make a few remarks about the theory of permissives we have introduced. We have argued that certain statement-like propositions play an essential role in important bodies of propositions, but strictly speaking these former are neither true nor false. All such, however diverse their content may be, share one common logical feature: propositions of the above type in respect both to the particular conceptual scheme in which they are in force and to the knowledge accessible to it are merely unfalsifiable. By 'unfalsifiable' I mean that neither the proposition nor any of its systematic consequences, within the scheme, can be shown to be false. Thus these propositions need be neither true nor false, nor demonstrably true nor false; to be non-falsifiable is sufficient.

It may prove convenient to treat some of these propositions as true within the particular theory that contains them. (This we can do since the presence of these propositions within a theory cannot make any other statement of the theory based upon them, falsifiable.) Once they are treated as true the logical status of their statement-analogues occupies a position stronger than that of propositions true by convention and weaker than those true by correspondence. But, and here is the relation of this theory of unfalsifiable propositions to our discussion of philosophic problems: intra-systematic immunity to falsification

does not guarantee inter-systematic compatibility. When we compare theories containing different unfalsifiable propositions their consequences may well be mutually incompatible. Still, by hypothesis, they are each unfalsifiable. It is this feature of such propositions that permits us to explain the presence of some perennial and apparently insolvable issues in philosophy. These are issues, according to this view, which appear whenever the language, or the associated form of life, or the conceptual scheme at a given stage 1) permits the expression of self-consistent, mutually incompatible theories, and at the same time 2) provides no hard and fast procedure in terms of which one is to adjudicate their rival claims. In other words language at such times is defective -- and some philosophic issues develop out of its partial breakdown. Or, to put this in another way, according to this view, language and our conceptual scheme sanction and (shall we say?) demand the expression of genuinely alternative visions.

Thus we can employ the results of our analysis of the presuppositions of the classical and linguistic approaches to argue for the credibility of our theory of permissives. For the premises we employ to explain the appearance of recurrent philosophic issues, however initially counter-intuitive they may be, are far weaker than those held by advocates of the rival approaches. But this is to be anticipated. Our first task is to analyze the language of ontology, and then to apply this abstract discussion of permissives to the analysis of a problem<sup>s</sup> concerning existence.





## CHAPTER ELEVEN

### The Language of Ontology

#1. It is a peculiar and perhaps startling feature of language that whatever ontology one wishes to express can be stated in terms of a system of signs whose only irreplaceable extra-logical term is either 'exist' or a related expression. This of course would be self-evident if all theories of existence were mere lists stating only that so and so exists and such and such does not exist, etc. However most theories of existence are not stated merely in the form of a comprehensive enumeration of entities to which existence is ascribed or denied. Most theories of existence establish some classification of objects, properties, etc., and order these in respect to existence. In this way terms such as 'substance', 'primary', 'real', 'degree of reality', 'essential property', etc. are introduced to play their part within philosophic speech. But these make for an untidy company. It will be one task of this chapter to remove them. Once this is done we have what we may call the 'language of ontology', a language which provides the linguistic structures in terms of which particular theories of existence can be stated. It will then be our purpose to show that this language, when correctly employed, permits the expression of theories about existence which successfully order important sectors of our experience, that the theories contain and perhaps must contain unfalsifiable propositions, and that language accordingly sanctions the expression of logically possible, mutually incompatible theories in this way.

Such at least is our strategy. Our first step is to single out a class of terms which are necessary in the expression of any fully specified ontology. For want of a better term we call these 'the basic elements of the language of ontology'. I confess that I introduce the phrase 'language of ontology', with diffidence. For there are several current meanings of 'language', which I do not intend. For example I do not mean

a formal language (or one patterned after it) in which certain sentences are singled out as theorems and as such considered to be true. Nor do I wish to refer to any particular selection of sentences within a natural language which one might claim to embody the meaning of 'existence'. On the contrary, I wish to consider nothing more arcane than a particular list of words. I assume only that these can be combined to form sentences -- just as any other words within a natural language. The terms which we shall isolate, and the forms in which they are used, specify one sub-section of natural language which we call 'the language of ontology'.

So much for what we mean by this our latest term of art. Now let us sketch out very briefly the method we employ. In view of the bewildering variety of known ontologies, we do not consider actual instances of ontologies directly, except by way of illustration. Rather we pose two general queries:

What are the forms of existence ascription and denial?

and

If  $x$  and  $y$  are entities to which existence is ascribed or denied, how may  $x$  and  $y$  be related in respect to this?

We assume that any ontology, either tacitly or overtly, must answer such questions. We also assume that, when carefully employed, these questions are meaningful, and that to-be-an-existent, is ascribable -- however curious a "predicate" it might prove to be.

The term 'ascribe' has been used in the above questions. The reader may recall that by 'ascribe  $F$  to  $a$ ' we mean: to conjoin the predicate-letter, ' $F$ ', to the individual (or entity) term, ' $a$ ', as in ' $a$  is  $F$ ', or ' $F_a$ ', or ' $\dots F_a \dots$ '. Similarly by 'deny  $F$  to  $a$ ', we mean that 'not- $F$ ', etc. is conjoined with ' $a$ '. In this way 'an ascription of  $F$  to  $a$ ' means roughly that  $F$  is predicated of  $a$ . But we have purposely eschewed this latter expression in order to avoid its surfeit of connotations.

Let us note, too, that entity-terms are to be considered as capable of denoting, or purporting to denote anything whatsoever. It is in this sense that we employ 'entity' as a term of broadest reference; anything is to be considered as an entity, irrespective of the logical or conceptual or lexical or factual restrictions which one might normally apply to the name-relation. In this way the round-square is to be considered as good an entity as you or 'I'. And so too is a yellow-bang, the class-not-a-member-of-itself, and the present-King-of-France. Specifically, we consider as an entity the real or purported designatum of any logically proper name, or any syntactically well-formed definite or indefinite description formulable within the language under study. This generality is limited only in one respect; we stipulate that the purported designatum be considered as a unit.

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#2. Let us first enumerate the ways in which any predicate, F, may be ascribed or denied to some entity, x. We can then apply the results of this study to an analysis of the forms of existence ascriptions. We are assuming, for the present, that instantiations of the open-sentences 'x is an existent' or 'x exists' are, generally speaking, meaningful and informative.

It will be convenient to distinguish direct ascriptions from all other ascriptions. By a 'direct ascription' of F to some specific entity, a' we mean that the assertion 'a is F' is made within a given context, or in a body of statements, by fiat -- there is neither argument for nor explicit defense of this claim. For instance, if my daughter says: 'This cake is delicious', and no further explanation is provided, she has within the context of the dinner directly ascribed the property of being delicious to the cake in question. If, on the other hand, my son then says: 'This sauce is horrible', and he proceeds to

explain: 'It puts a bad taste in my tummy', his putative direct ascription of Horrible to the sauce -- since it is argued for -- ceases to be direct within this context of utterances.

Direct ascriptions however oracular, need not be arbitrary. There may be good reasons, independently known to the hearer or speaker or both, for saying that a is F; or the truth or correctness of the claim may have already been established in another context; or perhaps 'a is F' is introduced as a convention and is justified on this account.

Let us distinguish direct ascriptions of F to an individual from quasi-direct ascriptions in which all members of a class including the individual, are said to be F. This is a slight but significant difference. If we say that all members of a class are F, we cannot say that some individual, a, is F on this basis unless we have the additional premise that a is a member of this class. Thus, as far as any class-member is concerned, an ascription of this kind is not direct. For instance when Hobbes says that only bodies exist, we must also know that the student now knocking at our door is a body, before we can infer that, in Hobbes' terms, he exists. In contrast to this, to say without a logically prior explanation that all members of a class are F, is to directly ascribe this predicate (namely that all its members have the property, F) to the class considered as an individual. Let us call this latter an ascription of a 'generic' predicate to a class, or more briefly a 'generic' ascription.

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#3. If an ascription is not direct, the ascription of F to a particular individual, say, a, can be said to follow by derivation; i.e. the statement 'a is F' follows, in accordance with given rule(s) from some other statement or statements already introduced by fiat. Although the term 'derivation' is customarily used to name a sequence of statements

contained in a proof, there will be reason in the sequel to employ it in a wider sense. We shall say that a statement,  $p$ , is derived from some statement(s),  $q, \dots, s$ , when  $p$  follows from these latter according to a specific set of rules; where these rules are either logical, extra-logical, or both. There are no other types of ascription which need concern us. For a statement is either argued for and defended, or it is not. If it is the former, such a defense or argument must be conducted according to some rules, and it must refer to some prior statement (or to some prior state of affairs, or thought, etc. describable in such a statement), or this statement is accepted as true within the context of the discussion. Thus the disjunction derived/direct is exhaustive.

Among ascriptions by derivation we may distinguish two types. In the first,  $F$  may be ascribed by derivation to an individual inasmuch as the individual is a member of a particular class, or is an entity of a given type. This, as noted above, may be called a 'quasi-direct' ascription of a predicate to an individual. It is based upon a generic ascription of this predicate to some class containing  $a$ . An ascription of this type may be performed when it is in fact or in principle impossible to fully specify actual individuals (e.g. electrons or members of a statistical ensemble). An ascription of this kind may also be performed when a bundle of ascriptions, e.g. 'Triangle 1 is  $F$ ', 'Triangle 2 is  $F$ ', etc. has been combined into one comprehensive statement such as: 'All triangles in the universe of discourse are  $F$ '.

In the second type of derived ascriptions, a predicate is ascribed by derivation from a set of premises which has at least one premise not contained in a quasi-direct ascription of the given predicate. It is evident that there are no other types of ascription by derivation. We shall find, too, that once the forms of existence-ascriptions have been listed, that any denial of existence can be expressed in terms of basically

similar forms. But let us note now one final case; this concerns what we shall call the 'withholding' of an ascription.

Sentences, of course, can be said to express true or false statements only if the presuppositions of statement-making are satisfied. It follows from this canon, if these presuppositions are not satisfied by some sentence,  $S_1$ , that  $S_1$  cannot be said to express anything that is either true or false. If we apply this notion to the language of ontology, it is possible that under certain conditions, neither the ascription nor denial of existence to a particular entity or type of entity can be considered fitting. Let us call this the 'withholding of an ascription'. We shall also find it convenient to say that the rule governing the use of the ascribed term is inoperable.

To summarize: We have distinguished the following uses of 'ascription of F to a':

Case 1: F is ascribed directly to a by fiat; i.e. there is no logically prior justification within the context of the utterance.

If F is not ascribed directly, it is ascribed by derivation; i.e. 'a is F' is entailed logically, lexically, or conceptually, etc. by other statements introduced as true within the context of utterance. We distinguish:

Case 2: F is ascribed quasi-directly to a. Such an ascription follows from only two premises. 1) F is ascribed generically to all members of a class, and 2) a is stated to be a member of this class.

Case 3: F is ascribed by derivation from a premise-set including at least one premise not contained in a quasi-direct ascription.

And finally:

Case 4: The ascription of F to a is withheld. In such a case 'a is F' is either nonsense, or incomplete. The rule for the

use of 'F' applicable in other contexts, is inoperable within this given context.

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#4. We now substitute 'is an existent' or 'exists' for 'F' in the above.

Case 1: Existence is directly ascribed to some entity. For instance: 'The Loch Ness Monster exists' or 'The class, Man, exists', or 'Manhood exists'. One might ascribe existence in a similar way to the French Revolution, or to the color of sunlight, or to God, Apollo, or space, or the planet Mars, or to matter, or to the electro-magnetic field, or to the positive square root of two, or the meaning of 'you', or the concept of Justice, or to Humpty-Dumpty, etc.

Any such entity-term appearing in the above may be considered as an entry upon an enormous inventory list of all the single items which are said to make up, or to constitute the universe. In this way, in ascribing existence to some entity -- as opposed to manipulating its name as a sign for a theoretical construct -- one is committed to the belief that removal of such an entity from the universe would alter the universe. Any English sentence performing such an ascription of existence, any sentence in which such a commitment holds or is entailed, will (as we have seen) contain an appearance of 'exist', or some term functionally identical with it.

Any such an ascription can be written in the form:

....is an existent.

Of course, this is not the unique form of any direct ascription of existence. It is, e.g., much simpler to say 'Apollo exists' and even more pedantic to say 'Apollo is a constituent of the universe' but these we propose are functionally identical with any sentence composed according to the above form.

To simplify the study of existence-ascriptions, it will be convenient to introduce the sign 'E!' to stand for 'is an existent', 'exists', and 'is a constituent of the universe'. The form of direct ascriptions of existence, thus becomes:

1\* ....E!,

where the dotted sequence is to be replaced by a logically, or syntactically correct definite description, or the name of a specific entity. Obviously this is not the most prolix part of ontology. Let us note that the introduction of the sign, 'E!', which is used for instance in "Principia Mathematica", does not imply that it is thereby defined. For the time being it remains undefined.

Existence may be ascribed directly to specific entities by means of 1\*. A companion form is needed to provide for generic ascriptions of existence, i.e. to all members of a class, or to all entities of a given type. If for instance we wish to ascribe existence to any man whatsoever, in the sense that this applies to all men, we can say that <sup>for</sup> all x, if x is a man then x exists. Using evident symbols, any such generic ascription of existence can be written:

2\* For all x, if x ---- then x E!,

where the dash sequence is to be replaced by an indefinite description, e.g. 'a man', 'a god', etc. It is of course, in general, possible to employ a form analogous to 2\* written in class notation. But since any such expression can in turn be rewritten as 2\*, whatever the formulation one chooses, the language of ontology remains ontologically neutral in respect to the question of the existence of "abstract" entities such as classes.

It is well to note that whenever an individual of the given type can be specified (e.g. 'All material objects exist' and 'This one chair of mine is a material object') it is possible to derive a quasi-direct ascription of existence to the specific individual. E.g. 'This chair exists'. But when an individual is at least in part unspecifiable,



as e.g. an electron, an ascription of existence to the individual, as above in the example of 'This chair...' becomes impossible. But in neither situation does one overstep the meager vocabulary in which 'E!' appears as the one irreplaceable descriptive term.

Similarly in:

Case 2, i.e. a quasi-direct ascription of existence to an individual, 2\* is again employed. Of course in this case an additional premise is necessary to establish that the individual in question, to which existence is ascribed as an F, is an F. E.g. from the premises 'Numbers exist', i.e. 'For all x, if x is a number, then x exists', and 'a is a number' it follows that a exists. Or more generally, where the square is used to mark the point of insertion of individual terms:

For all x, if x ----, then x E!

together with a premise of the form:

□ ----

is sufficient to establish any quasi-direct ascription of existence.

.....

#5. A quasi-direct ascription, as above, is one kind of ascription by derivation. Let us now consider others.

Case 3: The argument of the cogito, as we have analyzed it, purports to prove the existence of Descartes as a thinking being. And yet the premises of the argument contain no ascription of existence, quasi-direct or otherwise. Any such grounded ascriptions of existence, as we shall call them, may be formulated thus:

3\*  $p_1, p_2, \dots, p_n \vdash \dots \dots E!$

where 'p<sub>1</sub>', etc. are premises; '⊢' is the sign of derivability; and the dot and dash sequence marks the point of insertion for either individual or generic terms, e.g. 'a exists' or 'men exist', etc.

According to the analysis of the earlier section, 1\*-3\* exhaust

all possible basic forms. There are of course any number of more complex schemata, but these must be combinations of those already studied. As such they introduce no additional extra-logical terms, and so these need not concern us further.

The forms of negative ascription can now be dealt with in summary fashion. 1\* and 2\* provide the structure for any direct or generic positive ascription of existence. 3\* provides the corresponding form for any other positive ascription of existence by derivation. Any denial of existence, or combination of ascription and denial can be performed equally well in terms of the above forms supplemented with the sign of negation. For all that is necessary in such a case is to affix this to 'E!' wherever desired; e.g. 'not-E!'. This means that however bewildering the variety of ontologies may be, any ascription or denial of existence contained within them can be expressed in terms of 1\*-3\*, supplemented in this way. All such ascriptions and denials then contain only the one un-analyzed (and presumably extra-logical) expression 'is an existent'. Noting this, we are nearly ready to conclude our study of this part of the language of ontology.

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#6. There remains the fourth and final case:

Case 4: Let a be an entity in any ontology in which, as is customary, no existent is considered to have contradictory properties. If 'aE!' is true within such an ontology, obviously 'a does not exist' is false within the same ontology. But now let us ask: If within some ontology an ascription of existence is definitely not ascribed to some entity, b, (i.e. the ontology contains the statement 'it is not correct that b exists') can we infer then that b does not exist? Prima facie it would seem so. Can we not significantly inquire of any entity, whether or not it exists?

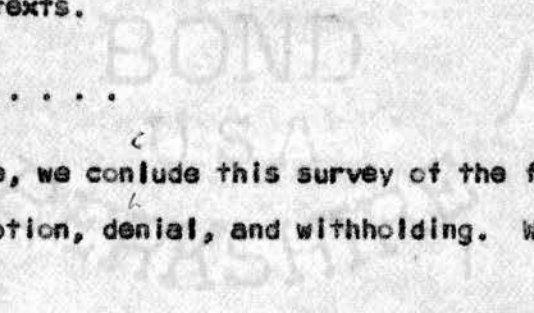
But let us not be too hasty. For instance, I do not think

That Wittgenstein could say that Logical Space, as discussed in his "Tractatus", exists. For we can think, he says, of a space without objects. And yet objects are the substance of this world, and a world without substance cannot exist. And so we can think of Logical Space as occupied by existents or as not occupied by existents. But we cannot, at least in the same sense of 'exist', say that this space exists or does not exist. Similarly if one introduces a reference to certain classes within an otherwise nominalist theory, one might defend this use on the grounds that the classes referred to merely served as logical explicantia, and that any discussion concerning their existence is irrelevant to this. (See Section #10)

Accordingly, let us include a form which allows one to withhold the ascription or denial of existence, if and when it is so desired. Namely:

4\* '-.-.-. E!' and '-.-.-. not-E!' are both incorrect.

The above formulation provides (in words) that neither the ascription nor denial of existence to certain individual or types is permissible. We can also say that 4\* provides for the inoperability of the rules for the use of 'exist' in given contexts.



#7. With this curious note, we conclude this survey of the fundamental forms of existence-ascription, denial, and withholding. We repeat these, in summary form:

<u>Schemata</u>	<u>Types of ascriptions of existence</u>
1* ....E!	Direct
2* For all x, if x is ---- then x E!	Generic
3* P <sub>1</sub> P <sub>2</sub> ... P <sub>n</sub> , ⊢ -.-.-.-. E!	Grounded
4* '-.-.-.-.E!' is incorrect	Withholding

Parallel forms exist for the denial of existence.

The dotted sequence, in the above, marks the point of insertion of a name or a definite description; the dash sequence marks the point of insertion of an indefinite description, such as 'a man'. 'E!' stands for 'exist', or 'is an existent' or 'is a constituent of the universe'. The † is the sign of derivability.

The only (presumably) non-logical term specific to the language of ontology, in all the above is 'E!'. The term 'incorrect' as in 4\* is not a term of the language but about it, like 'ascription'.

. . . .

§8. In the preceding we analyzed the forms of existence-ascription. These are used to establish answers to the question: What existents is/are there? We turn now to study the forms for replies to the related query: If x and y are entities to which existence is ascribed or denied, how are x and y interrelated in respect to their existence, i.e. how is an existent related to other entities and what ordering relations hold among them in this respect?

The reader will remember: a mark of an existence-ascription to some entity is the commitment it imposes to consider the universe changed if this entity were to be removed from the universe. In the following, although we cannot extradite entities from the universe, we can deny an existence-ascription to some entity and study the possible effects of this upon the ascription of existence to some other entity. (This would be the analogue of taking two actual entities, e.g. a man and his shadow, and asking: What would happen to the man if his shadow were to disappear? and what would happen to the shadow if the man were to be removed? Or what would happen to a ladder if the house against which it was leaning were removed, and conversely what would be the effect upon the house of removing the ladder?)

To study this, let us consider any two representative entities, or types of entities, j, and k, to which existence is ascribed.

And let their ascriptions of existence be contained, respectively, in propositions p and q. These ascriptions may be either direct or derived. Now let us ask: If we negate one or both of these ascriptions, what will be the effect of this upon the other? There are several cases to consider, which we will name by letter so as to avoid confusion with the preceding.

Case A: The denial of p has no effect upon the ascription of existence to k, contained in q, and the converse. For instance, within Aristotle's "Categories", the existence of <sup>each of</sup> the extra-substantial categorical types, such as qualities and quantities, does not depend upon the existence of the other. In fact the number of categories mentioned by Aristotle varies throughout the corpus of his writings, see Ross (1) p.22. This would be impossible, if these were more than contingently inter-related.

Let us call any two such entities mutually 'independent'. Denial of existence to either of these, in terms of some given theory, does not effect the ascription of existence to the other.

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§9. We now consider the next stronger relation:

Case B: The denial of existence to j, contained in p, effects q, while the converse is not the case. This is like saying: If we remove the building, the ladder falls; if we remove the ladder, the building remains unchanged. Subject to further refinement let us say, when the above general condition holds in respect to existence, that j is 'pre-eminent' as an existent in respect to k. We will also say that k is the 'subalternate' existent, or the 'subaltern in respect to j', and that a relation of 'pre-eminent to subaltern' holds between the two and, by extension, between their existence-ascriptions, p, and q.

Water, for instance, within Thales' ontology is a pre-eminent existent. It supplies the living stuff, etc. out of which all the other elements and compound objects are formed: the existence of all these

other beings is subalternate to the existence of Water. Similarly, God in the account given in "Genesis" is the pre-eminent existent par excellence. It is He who establishes the firmament in the midst of the waters and makes the Heavens and earth out of them. On the other hand, within the "Categories", it is primary substances, such for instance as a particular man or a particular animal, which are "most properly called substances in virtue of the fact that they are the entities which underlie everything else" (CAT) V, 2b 15. Aristotle is specific on this point: "If these primary substances did not exist, it would be impossible for anything else to exist" (CAT) V, 2b 5.

Let us note that each of the above examples can be considered as an answer to one sense of the question: What is real?; i.e. What exists in such a manner that the existence of other things is dependent upon it? As we shall see there is at least one other sense of 'real', but any use of this word in the sense of 'pre-eminent existent' must state at least that a relation holds between two or more existents, such that the existence of one provides a necessary condition for the existence of the other(s).

Although the relation of pre-eminence, in most of the above would appear to be absolute, a closer reading shows that this is not so. For instance, the existence of the primeval waters is not said to depend upon the existence of the earth-and-heaven creating God. Rather, whenever a pre-eminent relation is said to obtain, some further term of reference must be specified in respect to which pre-eminence holds; j is not pre-eminent to k, simpliciter, but in respect to some particular quality or action, or power, etc. As we have seen, individual substances are pre-eminent, for Aristotle, inasmuch as they provide the ground for properties; Water, in Thales' account, is pre-eminent inasmuch as it provides the stuff for the other elements; and God, in the Biblical account, is pre-eminent as the creator of heaven and earth out of the initial waters; etc. But the individual substance is not prior

to the universal in respect to its knowability; God is not pre-eminent in respect to the creator of the waters; etc. It is essential to realize, in any ascription of ontic pre-eminence -- or of any use of 'real' in this sense -- there is an at least implicit reference to some frame of reference in terms of which this relation is established. For instance Aristotle in his "Metaphysics", without rejecting the notion of the ontological primacy of the concrete individual, nevertheless maintains that the parts of the soul are "in a sense" prior to the being of the concrete individual, (META) Z, 1035b 14ff. "In a sense" here refers to a different frame of reference. (Similarly, we will recall that some existents can be said to be mutually independent in respect to a given theory, but not in some absolute sense.)

Noting this, we can formulate a schema of ontic pre-eminence as follows: By 'j is ontologically pre-eminent to some k, in respect to a qualifying condition, R' we mean:

k exists only if j exists, and  
k is R to the subaltern, j.

It is however convenient to employ the sign '<R>' to replace 'in respect to a qualifying condition, R' in the above formulation. Thus, if we use 'θ', 'x', and 'y' as variables in the above, we can establish the general form of ontic pre-eminence thus:

x is <θ> ontologically pre-eminent to y = DEF  
y exists only if some x exists, and  
x is θ to y.

('θ' in the above, takes on as values, any qualifying condition in terms of which the relation of ontic pre-eminence may be established.) We can further specify the above by noting that pre-eminence is triadic and, if R is transitive, pre-eminence is transitive. In company with independence, pre-eminence is irreflexive -- with the possible exception of entities that are said to be causes of themselves. Lastly, unlike independence,

pre-eminence is asymmetric.

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#10. (Let us note that the above relation of ontic pre-eminence can be generalized, by dropping the condition of existence in the consequent and replacing 'exists' with a predicate-term. For instance, if one were to take Ptolemy's theory of epicyclic motion merely as a theoretical construction, one could still say that if a planet,  $k$ , exists, then there is a point upon an epicycle,  $j$ , and the successive positions of this point represent successive positions of the planet in the heavens. The epicycle here serves as a logical explicans: any ascription of existence, or even any consideration of existence may be unnecessary or irrelevant.)

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#11. We turn now to the strongest case we need consider.

Case C: The entities,  $j$ , and  $k$ , to which existence is ascribed are such that denial of either ascription implies the denial of the other. The clearest example of this is in the interrelationship between a physical form or shape, and the stuff which is so shaped. On the level of our ordinary experience, neither can exist without the other. A more general, but abstract example, is the interrelationship between a non-empty class and its elements; in naive set theory to say that there are no elements is to say there is no class, and the converse.

Whenever the denial of existence to one entity implies and is implied by the denial of existence to another entity, we shall say that a relation of ontological 'equi-eminence' holds. This, as we have seen, obtains only when some specific qualifying condition ties the two together. Thus:

$x, y$  are  $\langle \emptyset \rangle$  ontologically equi- eminent = DEF

$x$  exists if and only if  $y$  exists, and

$x$  is  $\emptyset$  to  $y$ ,



where '0' again takes on qualifying conditions as values. (E.g. x is the physical shape of the stuff, y.) Equi-eminence, as noted, is again triadic. Its further qualities depend upon the particular values of '0'. For instance, in terms of Aristotle's notion of the relation of form to matter, an ontological equi-eminence along such lines, where applicable, would be asymmetric, intransitive, and irreflexive.

One might consider stronger forms of ordering relations; for instance one in which it is impossible to deny existence to one or both entities concerned. But, as we have argued, any expression containing 'logically necessary' can be re-expressed in terms of 'derivable from'. And again any extra-logical sense of 'necessary' is theory-laden. So any ascription of existence as necessary in this way can be rewritten as an ascription by derivation from the premises, etc. of the theory, or logical axioms, concerned. Thus the introduction of the modal auxiliary 'necessary' introduces no novel form. Similarly for 'impossible' and 'possible'.

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#12. There is one last term which shall concern us only briefly: 'real' in the sense of 'genuine existent'. Strange as this may seem, the use of 'real' in this sense, although it may contribute to our understanding of what is being said, adds no further content than that conveyed by a statement of the form '....E!' itself. In this way 'real' is like 'is true' in some uses; 'p' is true' says no more than does 'p' -- except it serves to relieve our doubts about the truth of 'p'.

For instance, when I say that something is a genuine F, I say that a is an F -- and then I proceed to indicate or to explain that it is not, or why it is not something else which is only like an F. When I say that something is a genuine Da Vinci, I mean that it satisfies the canons governing the ascription of painted-by-Leonardo to some works of art, and at the same time, tacitly or explicitly, I distinguish the painting(s) to

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which this is ascribed from others which are spurious. Admittedly the relation between the two types -- genuine and spurious -- is a curious one. For the need to say that something is genuine, only develops when it is also possible to confuse this with some other object which satisfies a related but defective set of canons for the ascription of the property in question. Or more exactly by:

'x is a genuine  $\Theta$  (and y is a presumed but spurious  $\Theta$ ) in respect to some adequate and acceptable canon,  $Z^*$ , for the ascription of  $\Theta$ ', we mean that x satisfies  $Z^*$ , and y -- although satisfying a prima facie adequate but unacceptable canon for  $\Theta$  -- fails to satisfy  $Z^*$ .

The above formulation, like all the others we have studied is not a definition, but schematic. It provides for the definition of 'a is a genuine F', 'b is a genuine G', etc., but is not their definition. Similarly, the following provides the form for definite ascriptions of 'real' in the sense of a genuine -- in contradistinction to an illusory or apparent -- existent:

x is a genuine existent (and y is a presumed but spurious or merely apparent existent) in respect to some adequate and acceptable canon,  $Z^*$ , for the ascription of existence = DEF x satisfies  $Z^*$ , and y -- although satisfying a prima facie adequate but unacceptable canon for 'exists' -- fails to satisfy  $Z^*$ .

'To be real' in this sense involves a relation between the genuine and the spurious, and at the same time a reference to two similar but distinct canons for the ascription of 'exists'. It is in this way that Parmenides, probably the first western philosopher to consciously use the distinction between 'Reality' and 'appearances', argues within his work that one must listen to the canons of reason. Following these one is led to conclude, despite contrary appearances, that Being is one. At the same time Parmenides must explain how those who follow the defective canons of sense are misled by appearances into viewing the world as composite.

Although this discussion of 'real' in the sense is severely truncated, (and of course derivative; see Austin) I believe it states the essential features. Let us note that 'a is real', by itself, is not a statement but at best a schema for one. This applies both to its use as 'pre-eminent in respect to some qualifying condition' and to 'genuine in respect to acceptable canons'.

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#13. Given the above schemata of ontological ascription and ordering, other terms such as 'degree of reality', 'substance', 'essential property', 'Being', etc. can then be formulated in a reasonably clear manner. If for instance one says that there are different degrees of reality, does one not mean that amongst entities some are more real than others? In the sense of 'real'; as pre-eminent, this means that one considers entities as ordered in a series of pre-eminent relations, and (whatever qualifying conditions are imposed) these relations are transitive. Thus if something is more real than something else, it is pre-eminent to the former. If it is most real, it is pre-eminent to all other subalterns in the chain. Even this sort of pre-eminence admits of degrees. 1.) An entity may be pre-eminent to all others in terms of one qualifying condition, as for instance Water, for Thales, is pre-eminent as the fundamental stuff of all things; or an entity may be pre-eminent in terms of all qualifying conditions. For instance, if one considers Aristotle's four types of causes to be collectively exhaustive, then the God (as in the case of Aquinas) that embodies all these causes, is absolutely pre-eminent, i.e. real, in this way. 2.) Given such patterns of pre-eminence, together with the possibility of confusing them, it is then also possible to ascribe 'real' in the sense of genuine existent, to all or some of these pre-eminent. In this way the Platonic Forms, which are certainly pre-eminent as formal

causes, can also be said to be the genuine existents in contrast to their subalterns which are then described as pale reflections of the former.

As for 'substance', or more exactly 'x is a substance', we can define this (schematically) as an x which is pre-eminent to all (or some) other entities in respect to some qualifying conditions. When and only when definite conditions, i.e. specific values of ' $\theta$ ' are given, such as 'to be unchanging in respect to all changing things', or 'to be a ground of properties', or 'to be a cause of all things including oneself', etc. can one then proceed to define specific senses of 'substance'. (And I suspect most traditional ontology has been an exploration of the consequences of the definitions chosen; and also that most of the controversy concerning existence is due to the confused belief that the morpheme 'substance' in some extra-theoretical sense, is clear and definite in itself.)

To continue: 'essential' properties are, it seems those properties which, if an entity x exists, x possesses. Or, in terms of some qualifying conditions:

If  $x \in E!$  then x is F, where F is  $\theta$  to x.

Any property then for which 'F' stands, which satisfies the above, can then be said to be an essential property of x. But if this is analogous to a pre-eminence relation, then the F-ness of x must obtain in respect to some qualifying condition, i.e. some value of ' $\theta$ '. In such cases this is soon forthcoming. The F-ness of x (or more exactly) that x is F, is derivable from the definition of x. (Loosely speaking one can say that it is in the nature of x to be F.) In this way, the property, say, to-be-self-moved can be said to be an essential property of any man: if he exists, he moves himself, and this property is derivable from the definition of man as a particular kind of animal. It is also possible within some formulations that the above relation may be one of equi-eminence between entity and essential property. But whether equi-eminent or pre-eminent, the set of essential properties of an object are those that

satisfy these relations. Non-essential properties can then be defined as those which are not members of this set and nevertheless ascribable to x, for instance to-move-himself-on-skis.

And lastly, by 'Being', presumably one means 'an x which is an existent', or 'the class of all such x's', or 'an existent which in some way is pre-eminent', etc. And by 'Reality' the class of all existents, or all existents contrasted in some way with those entities to which existence is not ascribed, or which are subalterns. Thus with the exception of expressions such as 'modes of Being' we have performed our task of expressing the language of ontology in terms of a few basic forms. As for 'modes', I confess I can never understand clearly what is meant, and suspect behind its use a verbal persiflage which solves issues by confusing them. But presumable a mode of Being is some sort of state, and this latter at least can be specified in terms of a set of characteristic properties. Thus once one defines substance one can establish some relation of pre-eminence or equal-eminence between this and the state or states in question. (In this way, Spinoza, I think, can say of substance, if it is viewed in a particular manner, i.e. in terms of certain qualifying conditions, that it has certain properties; and viewed from another position and in terms of different qualifying conditions, other properties. One can in this way maintain that the universe is at the same time material and immaterial without fear of contradiction; the properties in question are in different frames of reference and as such not directly comparable. At least this is the artifice.)

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#14. So, in general, it appears that whatever the ontology one professes, and no matter how complex its ordering relationships may be, such a theory can be expressed in terms of the schemata we have isolated. And these, with the exception of '0', contain only the notation of logic supplemented with 'E!'. Certainly any specific use of these forms requires other terms, e.g. the names and definite and indefinite descriptions which may be introduced into the dot and dash sequences. But such terms are not part of the schemata but of their instances. Similarly, although the values of '0' are numerous and disparate, any such value is in the form of a relation, and these we know, can be expressed in terms of ordered couples. These latter (we assume) do not contribute any specific features to ontology. In this way, by dint of paraphrasing, 'E!' now seems to emerge as the one irreplaceable term within the language of ontology. For, as we have seen in the preceding section, other terms such as 'substance', 'Being', 'Reality', etc. are also definable in terms of 'E!'. Thus the whole weight of an ontology, and the characteristics of ontology in general, depend to an extraordinary degree upon the meaning and the logical properties of this one term.

Within most of the preceding study we have discussed existence-statements as if they were all of the same kind. More recently we have distinguished between those which ascribe, deny, or withhold 'E!', from others which establish ordering relations among the entities so ascribed. Now if we consider the conditions which permit us to ascribe or deny existence, we will see that only ascriptions of existence to individuals (if any) can be said to be direct in all possible contexts. For even if existence is ascribed generically, by fiat, within some context, the effectiveness of this ascription ultimately depends upon the knowledge gained in earlier contexts. For no amount of direct experience with some a, b, and c, etc. which are F, can ever fully justify our claim that all members of a large class containing a, b, and c are F. (Perhaps in some cases a class might be seen to have all its members F merely on the basis of a direct observation of the physical aggregate of its elements -- and thus warrant a direct ascription of F as the generic property of the class.

But the kind of generic ascriptions we encounter in ontology are not of this cloth. Rather we are told that all bodies exist, or that if anything is a number it exists, or that minds exist. And the classes of these are certainly never seen in one aggregate, nor may they even be denumerable.) In other words, generic ascriptions of this kind if direct in one context are ultimately grounded in terms of other premises, or established by fiat without the possibility of any ulterior justification -- except, perhaps, in respect to their consequences. Unless one has recourse to intuition or innate knowledge any such justification (merely on the basis of a fiat) is arbitrary. If we rule<sup>out</sup> these latter recourses as not providing adequate grounds, then the only justifiable ascriptions of existence which can be said to be direct in all contexts (if there are any such) are existence-ascriptions to specific entities. The truth of all other existence-ascriptions then depends upon these and/or the theory in terms of which they are established. This is another way of saying that with the possible exception of direct ascriptions of existence to specific individuals, and logical consequences of these, any other existence-ascription is such that a genuine alternative formulation is also possible.

We have noted that the forms of the language of ontology permit the denial of existence to any entity to which it is ascribed. Accordingly, unless something in the meaning of 'E!', as it is applied in direct ascriptions of existence to individuals, interdicts this -- the language of ontology when correctly used does not ban the formulation of incompatible existence-ascriptions. And this, we remember, is one of the presuppositions of the theory of permissives.

As for ordering relations, these are stated in the form of conditions containing ascriptions of existence. Thus if the theory of permissives is applicable to that part of the language of ontology containing existence-ascriptions, it is a fortiori applicable to the entire language.

Thus, unless some feature of 'E!' prevents this, nothing specific to the language of ontology bans the expression of genuinely alternative theories of existence.

Nor does it seem to. For at best there are very few entity-terms which we would find it bizarre to combine with 'exist'. And this seems to be the case in general. Philosophers and often the world at large have argued vehemently about the content of existence-propositions, but this concerns the truth or falsity of asserting that something exists. Rarely has one first questioned the propriety of using the word 'exist'. Indeed with the exception of issues involving queer notions such as that of logical space, how could this type of disagreement arise?

And also, although this is to anticipate, we shall argue that 'exist' is definable -- but in terms of a multiply ambiguous expression; and as such it does permit the expression of alternative ontologies.

So it seems that the specific features of 'exist' -- and by extension those of the language of ontology -- offer no constraints to the expression of mutually incompatible theories of existence. Thus as far as this pertinent sector of language is concerned, the theory of existence-propositions as permissives is possible.

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We conclude then, that with the one proviso noted above, concerning 'E!' as employed in direct ascriptions to individuals, the forms of the language of ontology present no impediment to the assertion of the theory of permissives. In this respect, the theory is possible. We will argue now that it provides a credible explanation for the features -- and puzzles -- of ontology which have concerned us.



## CHAPTER TWELVE

### Existence-statements as Permissives and the Linguistic Approach

#1. If the theory of permissives is tenable, then in all ontologies i) there must be some unfalsifiable existence-propositions, and ii) these propositions are essential in the elaboration of the ontology. It is obvious that we cannot show this to be the case by analyzing all ontologies. Still we can look at a few theories of existence that have been historically important. And we shall show that they do satisfy the above conditions.

For the first illustration, let us turn to Aristotle's discussions of substance and of qualities in the "Categories". We follow Ross in holding that this is not only a logical study but is at the same time a "classification of the main types of entities involved in the structure of reality", Ross (1) p. 23. In this latter aspect the theory of the "Categories" can certainly be considered ontological. We have chosen the discussion within this work, rather than say that of "Metaphysics", to simplify our exposition. Even then we will touch only upon those points which are relevant to our purpose.

Within the "Categories" Aristotle, as we know, introduces the technical term "being present in a subject" to stand for "being incapable of existence apart from the same subject", (CAT) 2, 1a 23. (The term "existence" is itself left undefined.) Thus to say that such-and-such is present in a subject means, in the terminology of the preceding chapter, that such-and-such is a subaltern existent in respect to the subject, or conversely that the subject is pre-eminent in respect to it.

Aristotle is aware that what we have called the 'ascription of pre-eminence' (or 'to be prior' in his terminology), varies according to the qualifying conditions imposed. For this see (META) Delta 11. In the

present case the qualifying condition is established in respect to what Aristotle calls "underlying" or "providing the ground for". It is in this sense that he observes:

Moreover primary substances are most properly called substances in virtue of the fact that they are the entities which underlie everything else..." (CAT) 5, 2b 15.

Primary substances, in this case concrete individuals such as a particular man, are absolutely pre-eminent as existents. Not only are they never present in a subject, i.e. never subalternate in this respect, see (CAT) 5, 2a 11, but "if these did not exist, it would be impossible for anything else to exist" (CAT) 5, 2b 5.

Specific qualities, on the other hand, are present in a subject and as such subalternate to it. "For instance...a certain whiteness may be present in the body" (CAT) 2, 1a 27. A body for example, is white inasmuch as it contains whiteness, and honey is sweet because it contains sweetness. (See "Categories" 8, 9a 28ff.) These latter formulations are not as totally vapid as they sound to us today. Although it would lead us astray to discuss Aristotle's theory of color in any detail, we can -- without too much over-simplification -- note the essential features. Bodies are said to have the potential for becoming colored, just as in classical physics the kinetic energy of a body is potentially present in a body at rest. As far as color is concerned, light strikes the body and, in so doing, actualizes this potential. Whiteness is then actually present in the body. (See Beare #33-37)

One might wonder whether such particular qualities do exist even as subalterns. But Aristotle is definite on this point. If we turn again to his philosophic lexicon, in "Metaphysics" Delta 7, we recall that the senses of "being" are just as many as there are figures of predication, i.e. categories. Quality, of course, is one category of Being. (In the absence of any counter-evidence, we assume that the content of Delta 7 also applies to the discussion in the "Categoric".)

Thus "being" in one sense can be ascribed to qualities, just as in another sense it is applicable to the concrete individual.

If we employ 'exist' to cover the various sense of 'being', we can express the gist of most of the above as follows:

- (1) Concrete individuals exist.
- (2) Qualities exist.
- (3) Where x is a particular quality, x exists only if some concrete object, y, exists; and y supplies the ground for the actualization of x.

Having stated these premises, we must now show that each is essential to an ontology of the above kind -- and is unfalsifiable. To show the former, let us perform a mental experiment in which we remove these premises and consider the theory which is left. We assume, and will justify this later, that one of the prime purposes of any discussion concerning existence is to assign a definite status in respect to existence, to each entity one might consider. But if we were to remove (1) or (2) or both, the theory so fragmented then assigns no ontological status either to concrete individuals or to any particular quality. Obviously any such ontology would be seriously inadequate.

We assume too that another key role of most ontologies is to provide some order amongst existents of various kinds. In view of the broad use of "being" countenanced by Aristotle in Delta 7, such an ordering becomes mandatory in the present case. For not only do concrete individuals, such as Socrates, exist; but so does (being) two cubits long, or white, or double, or greater, or in the Lyceum, or yesterday, or reclining, or horse-shoeing, or lacerating, or being cut, etc. exist. So too all particular quantities, qualities, relations, positions, times, postures, states, activities, and passivities, exist. To say the least this tends to create a bloated universe, and the evident function of propositions such as (3) is to tidy this. Thus to remove (3) would reduce the ontology to an overstuffed grab bag of entity.

(1) - (3), or propositions akin to them, are then essential com-

ponents in any comprehensive and satisfactorily ordered description of existents, along the lines delineated in the "Categories" (and amplified in turn within "Metaphysics"). We need not add that these works established the theory of existence held by most western thinkers off and on for close to two thousand years.

Now are propositions such as (1) - (3) provable or disprovable in some way? Consider (3) for a moment. I have a cigarette in front of me. How could I show, as (3) claims to be the case, that this cigarette provides the ground for its whiteness? I certainly cannot see any such state of affairs, any more than I can see the potential energy in a ball held at the top of an inclined plane. (Similarly I cannot see that this is not the case.) But if I cannot see this, how can I argue for it? I can argue, in the case of a ball, that if it is released its velocity will increase at a particular rate, and I can then confirm this prediction. Similarly I might try to argue that if light strikes some body which is potentially white, the body will become actually white. But to make this claim -- unlike predicting the velocity of the ball -- I must know from the start that the body is and will become white. So when I say of some white body that whiteness has become "actual", it is neither surprising nor unsurprising: it just fails to tell us anything that we did not know beforehand. But by this very feature we cannot then say that it is wrong, either. (Carnap and others will of course say that such a statement lacks cognitive significance. But for the present we will overlook this point, for we consider this within the final chapter.)

One might also try to argue that in describing the white as actualized, one has adequately explained the occurrence. Perhaps one has, but one can also say that the body reflects light and so becomes white. (And given sufficient knowledge about the physical structure of its components, one could presumably also predict this beforehand.) So one cannot argue: Aristotle in (3) provides the unique and most compelling explanation. Thus (3) is true.'

Could one then perhaps disprove (3), but how? How could one show that the cigarette does not provide the ground for its whiteness? Or (if we consider the conditional linking whiteness and cigarette) to disprove this we would have to show that the whiteness of this cigarette existed and that this cigarette did not? A neat trick this.

Or consider (1) and (2). We have argued at long and at large that (with the possible exception of theory-free direct ascriptions of existence to individual entities) no existence-ascriptions can be proved or disproved without reference to a particular theory. Thus even if we would prove or disprove (1) or (2) in terms of some theory, there would then be other propositions similar to these, within the same theory, which we could not prove. And if we assume the theory self-consistent, neither could we disprove these other propositions. Since (1) and (2) are essential in the above ontology -- if these were warranted by logically prior propositions, these prior ones would then be essential. In either case there are some irreplaceable propositions within an ontology (or within a theory containing an ontology) that are neither provable nor disprovable, i.e. which are unfalsifiable.

The one possible exception, namely direct ascriptions of existence to individuals, need not concern us. For even if such were incontrovertibly true, they could not in themselves warrant generic ascriptions of existence, such as (1) and (2). Further, apropos of this last point, we have already noted that Aristotle modifies the meaning of 'exist' in associating substance with the concrete individual. Thus even if there were some theory-free ascription of existence, in the Aristotelean sense of 'exist', a rival philosopher might still contend that this was not the proper nor the primary sense of 'exist'. And so even such an ascription could not be said to be theory-free. Nor again could it be shown to be false.

In brief: (1)-(3), however essential they may be to the Aristotelean description of existents, are unfalsifiable propositions.

This conclusion should hardly prove a surprise; it is in its way only a detailed instantiation of that which we have already established in Part Two. For we have argued there that the classical approach, in presupposing that all statements contained within an ontology are demonstrably true or false, is untenable. (We recall our convention that axioms and incontrovertibly true statements are to be considered as derivable from themselves.) In this way, from the <sup>re</sup>negation of:

All statements contained within a theory of existence are demonstrable, etc.

It follows:

There are some statements contained within an ontology that are not demonstrably true or false.

But if they are not demonstrably false, they are unfalsifiable, and if they are at the same time not demonstrably true, they are merely unfalsified. In this way, from the general untenability of the classical approach -- in either its categorical or weaker forms -- we can infer one tenet of the theory of permissives namely:

Some propositions contained within an ontology are unfalsifiable.

So, strictly speaking, any detailed reference to Aristotle or to others is unnecessary.

But in this sub-lunary world of poor philosophers, detailed observations of this kind are not amiss. They do serve to support, or perhaps even to confirm the general thesis. And secondly we must still employ these, or other instances, to show that some such propositions although non-falsifiable are nevertheless essential to an ontology. With both these tasks in mind, we now proceed.

#2. Let us now investigate propositions which establish similar relationships in another and equally significant, ontology -- that of the atomists. (In the following, the translation of the first clause is my own. I wish to stress the opposition, 'subjective-objective', contained in the *δομῶ...σε* construction):

Sweet and bitter, hot and cold, color, are subjective; in reality there are only atoms and the Void..." (KR) 589, Democritus.

ΝΟΜΩ ΓΑΥΚΥ, ΝΟΜΩ ΠΙΚΡΟΝ, ΝΟΜΩ ΘΕΡΜΟΝ, ΝΟΜΩ ΨΥΧΡΟΝ, ΝΟΜΩ ΧΡΟΙΗ,  
ΕΤΕΗ ΔΕ ΑΤΟΜΑ ΚΑΙ ΚΕΝΟΝ....

These are so small as to elude our sense" (KR) 555.

Atoms, to which existence is ascribed generically above, are indivisible units of matter, endowed with shape, size, motion, and perhaps weight. See (KR) p. 414-418. They are, as noted above, in general, invisible. The Void, to which existence is directly ascribed, is the empty region between atoms. See (KR) p. 408. Concrete individuals, such as Socrates, are formed out of loose combinations of the atoms:

As they (sc. the atoms) move they collide and become entangled in such a way as to cling in close contact to one another, but not so as to form one substance of them in reality....

....overtaking each other they [the atoms] collide, and some are shaken away in any chance direction, while others, becoming intertwined one with another according to the congruity of their shapes, sizes, positions, arrangements stay together and so effect the coming into being of compound bodies" (KR) 581, 582.

Atoms, then, within this view, are pre-eminent existents. The being of compound bodies, of concrete individuals, is subalternate to the existence of the atoms. The characteristics of the atoms determine the qualities of the compound bodies they constitute:

Bitter taste is caused by small, smooth, rounded atoms whose circumference is actually sinuous, therefore it is sticky and viscous ...salt taste is caused by large, not rounded atoms, but in some cases jagged ones" (KR) 591.

And similarly, one supposes, for all the other qualities such as being hot or cold or colored mentioned earlier.

We can rephrase the content of the above thus:

- (1) Atoms exist.
- (2) The Void exists.
- (3) Nothing but atoms, combinations of these, and the Void exists.
- (4) The existence of concrete individuals is subalternate to that of the atoms; and loose and temporary complexes of atoms constitute the former and establish the properties of the concrete individual so formed.
- (5) Atoms have size, shape, motion, perhaps weight, are indivisible and, in general, invisible.
- (6) Color, taste, etc. do not exist as genuine properties of any objects. Rather, these are due merely to the effect upon us (i.e. the effect upon the atoms which form our soul) of the shape, etc. of the atoms of the objects perceived and sensed.

It is obvious that (1) - (4) are essential. The first two propositions specify those entities, namely the atoms and the Void, which do constitute the universe. The third proposition limits ascriptions of existence exclusively to these and to their combinations. (4) then orders compound bodies as subalterns to their atomic pre-eminent. Removal of any of these propositions would render the ontology defective. But (1) - (4) in themselves have little explicative power. It is for this reason that the properties of the atoms must be specified, as in (5). Let us note that (6), the denial of objective reality to color, etc. is not an essential proposition, but is a consequence of (1) - (5).

But how could any of these propositions be shown to be either true or false? If we cannot see the atoms, we cannot see the region in between them as the Void. Thus neither (1) nor (2) can be seen to be true -- nor for that matter, false. Similarly, if we include the invisible among existents, how can we be certain there are no exceptions to



(3)? For instance might there not be immaterial souls? But also how could we see that (3) was false? And again, as far as (4) is concerned, if I say this cigarette is composed of invisible elements, how can I see if this is true or false? Nobody for instance has seen an electron nor observed its spin, and some thinkers have questioned the existence of even these theoretically pre-eminent entities. How is a Greek to know whether the atoms, which Democritus claims must constitute his lover and the Parthenon, are really there in his lover and the Parthenon -- or are only logical explicantia? And how is one to know that the atoms have only the nice tidy properties Democritus assigns to them? Of course, if they do, our explanation for the behavior of micro-bodies becomes simplified. But is this a justification? Who has told us that Nature is simple -- or is not?

And further, one can ask, with Aristotle, whether knowledge is merely sensation (see "Metaphysics" 1009b 1ff) as presumably it must be within a material universe, and as such whether the Atomists' theory is tenable. But then again, as Smart and others have argued more recently, one might claim that sensations are indeed merely physical processes, and that by extension thought too can be described in terms of a reductive physical account. So the correctness of the Aristotelean criticism, and this aspect of the theory he attacks, remains moot, i.e. neither proved nor disproved nor rejected, even today.

Similar perplexities arise in respect to the properties of atoms and the relation of atoms to qualia, such as color and taste. Obviously we see things as colored. Yet how could we possibly see that atoms, even if they were visible, together with compound objects, were really colored (if this means anything) or that they were not? But if we cannot see this directly, we cannot argue for the truth or falsity of (5) either. For what form could such an argument take? It cannot be grounded in a perception; Democritus denies the correctness of information based upon sense (see below). It must then be grounded in

terms of the concepts one holds, say those concerning bodies and qualities. But, as we have seen, Aristotle has one such concept and Democritus another. So one cannot establish that (6) is true or false or more plausible, simpliciter, in this way.

And, more generally, if any recourse to knowledge based upon perception is, as Democritus says, "obscure", to what else can one refer? Or how, except on the basis of other perceptions, could one deny his claim, and consider perceptual data to be in fact veridical? Or, if one were to rely not upon perception but upon some other form of knowledge to establish the correctness or incorrectness of propositions such as (1) - (6), a rival could always introduce a different proposition -- and so the argument proliferates.

Democritus, for instance, does claim that there are two forms of knowledge. Although the first, i.e. that which is dependent upon the senses, is obscure or confused:

The other is genuine, and quite distinct from this.... When the obscure form can no longer see more minutely nor hear nor smell nor taste nor perceive through touch, but finer++++" (KR) 590.

The manuscript breaks off at this point. Apparently, see (KR) p. 424, genuine knowledge is intellectual. But how can Democritus claim that his intellectual perception, or intuition, is true when Aristotle's intuition of first principles is false? Or the converse?

Like the manuscript, let us break off discussion at this point. We have been content to suggest that whatever method one might use to establish the truth of propositions, such as (1) - (6), is as inconclusive as that which one might employ in a refutation. And yet these or similar propositions are essential to the Atomist's theory of existents. Thus, like those contained within the "Categories", the establishing propositions of this equally fecund view, if self-consistent, are again substantially unfalsifiable.

Similarly, we have argued earlier that Descartes is unable to

show in any categorical manner, that a thinking substance exists. But the undemonstrability of 'p' is not evidence for the truth of 'not-p'. And yet further attacks which, from Hobbes on through Ryle, have been directed against the Cartesian position have generally tried to show that any reference to a thinking substance is unnecessary. But just as tonsils are unnecessary and still are there, arguments of this kind, even if conclusive, cannot disprove the Cartesian claim either. Thus -- provided we can talk meaningfully of the self or soul or mind in the above terms -- it is quite likely that the proposition that such a soul exists is also unfalsifiable.

(Of course, as our reservations have suggested, all these propositions may be resistant to effective proof or disproof only because they are nonsense. We return to this point. But for the present let us assume that at least some of these mutually incompatible propositions are meaningful.)

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#3. Within the preceding we have studied propositions essential to the expression of three ontological positions. Each of these ontologies has played an enormously significant role. Probably the only other theory of existents of comparable importance in the occidental world, is the Platonic view. Although we have not investigated this latter, it is I think safe to say, at the very least, that Plato has introduced no cross-culturally convincing proof for the existence of the Forms. And conversely, although one might argue that the assumption of their existence is unnecessary, I do not think that any purported disproof of their existence is sound in terms of the premises of all self-consistent schemes. For instance, Aristotle's arguments against the existence of the Forms, in general are couched in terms of the Aristotelean system. This is natural enough, but this does not show that the Platonic claim -- in terms of Plato -- is self-inconsistent. If one grants this latter point, all these historically significant ontologies then share this common feature: each contains some existence-propositions, essential to it, which are

neither provable nor disprovable.

And yet, despite this, if one were to excise these and similar propositions, or else remove the entire ontology containing them, most if not all of the conceptual schemes which western man has entertained would in some respects be strikingly incomplete. This is an important point; let us consider it from another angle.

The recursive mechanisms of language permit the formation of an infinity of syntactically well-formed expressions which ascribe to entities any sort of properties and capacities. Although doubtlessly at an early stage the stock of entity-terms corresponded pretty closely to the stock of entities one considered as constituting the universe, this happy state is long since past. For membership in the class of entity-terms (as we employ this term) is limited only by the combinatory resources of the language employed. And these resources in general far outstrip in range and variety the extra-linguistic objects which they might be used to denote. Thus we are forced to distinguish between entity-terms inasmuch as some of these -- and only some -- can be considered to name objects, or to describe types which (whatever one might mean by this phrase) can be said to 'constitute the universe', or 'to exist'.

In one way or another each of the above ontologies establishes a framework in terms of which such distinctions can be made. But ascription, denial, and withholding of existence-ascriptions are subject to at least two opposing canons: that the assignment of ontological status be as consonant as possible with our common experience, and that ascription and denial be distinct. Aristotle's assignment of ontological values is certainly consonant with natural expectations but -- as sections of the "Metaphysics" testify -- the distinctness of his existence-ascriptions and denials can only be maintained if he also introduces a complex set of ordering relations. Democritus' distinction, on the other hand, is clear. But simplicity is purchased at the cost of intuitive self-evidentness. Consonance with experience can only be re-established by

introducing an equally complex distinction between the genuine properties of objects and our subjective experience of them. Thus, in one system or another, the full resources of the language of ontology must be called into play. Ordering and excluding relationships between entities in respect to existence become as important in the expression of an ontology as any of the initial ascriptions of existence it may contain. In other words, if 'exists' is significant, one cannot brush off as unimportant the propositions we have been discussing. Rather we must accept them, however unfalsifiable they may be, and find their place.

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#4. We now discuss the claim we have made that unfalsifiable propositions, such as the above, when introduced into a theory and considered as true, permit us to talk in turn in an important way about other propositions as true. For instance, the propositions we have studied within the Democritean position, are merely unfalsifiable. As such -- and as long as they remain so -- they and their consequences are self-consistent. And further, no low-order observation statements can infirm them. (For if inconsistent or infirmed they are no longer unfalsified.) All this seems to damn such propositions with faint praise. But if we turn this situation to our liking, it is evident that there is now no impediment to our treating these self-same propositions as true. For convenience of reference, let us repeat several of them:

- (1) Atoms exist.
- (3) Nothing but atoms, combinations of these and the Void exists.
- (4) The existence of concrete individuals is subalternate to that of the atoms, and loose and temporary complexes of atoms constitute and establish the properties of the former.
- (5) Atoms have size, shape, motion, perhaps weight, are indivisible, and, in general, invisible.

From these establishing propositions it follows, as a consequence, that all apparent properties of concrete individuals, such as

being colored, cannot be said to be intrinsic properties: that which we see as colored is due merely to the effect of the shape, etc. of the atoms, of the objects we perceive, upon those atoms out of which we are formed. Thus the relegation of color, etc. to the role of a subjective property follows, as noted earlier, from (1) - (5). If these establishing propositions are taken as true, this conclusion is true.

In the same spirit, a scientist might say today, as far as physics is concerned, that no physically meaningful description of macro-objects need contain any descriptive words which are not ultimately expressible in terms of 'mass', 'length', 'time', and combinations of these. Given this proposition, which can be construed in this sense as a definition of 'physical object', it follows that all the physically significant properties of an object can be fully described without any reference whatsoever to those sensuously experienced contents which the percipient associates with the object. As far as physics is concerned, it is true to say that these latter do not constitute any (physically) significant features of the object.

And, within another scheme, Aquinas accepts as true the statement that nothing is the cause of its own motion. This itself is a reasoned consequence of other propositions concerning motion, in particular that motion involves a change from the potential to the actual. (Again an unfalsifiable proposition.) But if we consider this proposition as true, then the above statement concerning self-motion must be true of all things in motion. But if this is so, and this concept of motion precludes the possibility of an infinite sequence of causes of motion, the existence of present motion now forces us to conclude that an unmoved source of motion exists. And if this is what one means by 'God', then -- within the scope of these establishing propositions -- it is true to say that (a) god exists.

Or again, let us grant the proposition that doubt is indubitable. (This is not to deny the force of our criticism of the coqito;

rather we now permit Descartes to consider doubting, as in "Meditations",  
 III , to be in some curious way independent of an object.) And  
 let us consider also as true that no activity is possible without a sub-  
 stance to perform this activity. Granted these premises, is it not true  
 that a doubting, i.e. a thinking substance, exists? This follows, if it  
 does only because Descartes is permitted to employ doubt as a monadic  
 predicate. And although I consider this highly awkward, how is one to  
 show that this is true or false? And similarly, if one wishes to main-  
 tain the no-activity-without-a-substance thesis, although we have shown  
 this to be inapplicable in various situations, how can one show this to  
 be false, simpliciter? One can always invent a substance, e.g. an ether,  
 to account for the apparent breakdown of this claim. (And if the ether  
 thesis itself proves inapplicable, one can then in turn modify it to  
 avoid a conclusive disproof.) Shored up and splinted in this way,  
 Descartes' 'therefore I am' may thereby become a sound conclusion.

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#5. I could continue with further examples. But I think the point,  
 however curious, is clear: when unfalsifiable propositions are introduced  
 into a theory as true, then other propositions -- if derivable from the  
 former -- can then be said to be true or false. The establishing propo-  
 sitions constitute as it were a set of fixed positions, chosen among  
 various possible ones. Propositions of this type, together with their  
 consequences, serve to establish the structure of a particular concept  
 of an existent -- or to express a theory of existents.

But if this is so, how can we possibly believe such theories?  
 To answer this, it might be well to consider such a theory through a  
 period of time. Let us imagine that some theory proves self-consistent  
 and reasonably comprehensive and ordered through the course of long test-  
 ing period. Let us assume, too, that it shows itself to be consonant  
 with both experience and with other theories accepted as true or correct,

or at least that its consequences do not run contrary to these. In other words we assume the initial propositions remain unfalsifiable. And lastly, let us imagine that the theory satisfies not only our demands of order and comprehensiveness, but also other perhaps equally deep human needs. Given these assumptions, we can imagine the theory as accepted. But then it is only natural for its success to feed back into its premises. In this way, its establishing propositions -- all the time merely unfalsifiable -- take on the air of indubitable truths. (In this connection see Hanson, Chapter V: Newton's three laws of motion, when initially propounded, were considered by many of his contemporary physicists as merely elegant mathematical constructions. The success of the theory, based upon them, in time induced the conviction that these laws were immutable truths.)

Strictly speaking, neither these propositions nor the conceptual structures they establish are true or false. Nor need any of these be exclusively correct, nor for that matter totally in error. Rather what a general theory of this kind provides (we say) is not so much a set of truths, but a comprehensive view; not so much the absolute and unchanging, but a way of seeing, of conceiving, a way of holding together the variegated elements which the flow and buckling, both of theories and experience, forever tosses up before our gaze.

Not a set of truths but a vision:

Philosophy is many things and there is no formula to cover them all. But if I were asked to express in one single word what is its most essential feature I would unhesitatingly say: vision. At the heart of any philosophy worth its name is vision and it is from there it springs and takes its visible shape...it has always been felt that philosophy should reveal to us what is hidden...from Plato to Moore and Wittgenstein every great philosopher was led by a sense of vision; without it no one could have given a new direction to human thought or



opened windows into the not-yet-seen. What is decisive is a new way of seeing and, what goes with it, the will to transform the whole intellectual scene. This is the real thing and everything else is subservient to it" Waismann (3), VII, (p. 483).

It is such a vision of the most general characteristics of existents that Aristotle, Democritus, Descartes, Plato, and others provide.

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#6. In a way, it is also such a looking into the not-yet-seen which Waismann, following Wittgenstein, provides in the above view of philosophy. But where are we? We have been arguing for a theory of existence-statements as permissives. If this too is a view, how are we to establish this, or to show its credibility? We have argued that the theory of permissives does apply to various historically important ontologies, and by extension to all. Specifically we have shown, as far as the ontologies we investigated are concerned: i) These contain unfalsifiable propositions. ii) These or similar propositions are irreplaceable. iii) Theories containing them play an essential role within our conceptual scheme and iv) When such essential and unfalsifiable propositions are considered as true within an ontology, other statements, i.e. their intra-systematic consequences, can be said to be true. Thus we have shown that the claims of the theory of permissives is indeed satisfied by these ontologies. And we have noted that these ontologies include those theories of existence which have been of single importance in our cultural history.

Still, we must admit, the same general state of affairs might also be described some other way within a rival theory of philosophic problems. We are thus compelled to argue along other lines for the credibility of our own approach. To do this we shall consider the extent to which this theory of permissives makes explicable otherwise puzzling features of the intellectual scene. For instance: Can it

adequately explain the continued presence and perennial reappearance of substantially similar philosophic issues? Can it account for the certainty with which mutually incompatible claims can be asserted by rival thinkers? Can it account also for changes in philosophic attitudes? Can it explain the failure of rival theories of philosophic problems, and can it reconcile the most attractive claims contained within these theories? These, we think, are fair questions, and we shall devote the remainder of this chapter to a discussion of the theory of permissives in light of them.

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A: The first puzzle is one we have noted from the very start, namely the apparent inconclusiveness of most philosophic studies of fundamental issues. I say 'apparent inconclusiveness', for if one believes that such philosophic questions are requests in the form 'Solve me!', the way an equation is to be solved, then truly all too few such issues have been solved. But, if on the contrary we consider these as demands to furnish new conceptual structures, why then the proliferation of different answers is not a scandal but a mark of proper philosophic activity. For, as we have seen, each successful ontology introduces a radically different view -- and as such the presence of rival positions in philosophy becomes as natural as pits are to cherries.

To the extent that theories may be under-determined by experience, to that extent some of the elements and some of the structures we discern there, may be nothing more than the outlines our concepts, or our language have traced. And to the extent that different visions may be formulated, one theory thereby projects upon (or delineates within) the subject features incompatible with that of another. Of course, if theoretic and extra-theoretic elements correspond in all cases then all rival theories if correct would be fully compatible. But the burden of proof that this is so, in this

case, lies upon the strong realist who might assert this. And, as a matter of fact, we have seen that actual ontologies, however successful they may be, are not compatible, even within the wildest stretch of imagination.

What I have been trying to say is that (within this view of existence-propositions as logical permissives) the philosophic questions which have occupied us from the start are not to be resolved, nor dissolved, but inasmuch as they indicate a fundamental incompleteness, the appropriate action is to produce and to explore new conceptual structures; and that experience and the nexus of existing theories and beliefs at all or most times is sufficiently labile to permit the satisfactory employment of otherwise incompatible viewpoints. So, if we assume that some existence-propositions are logical permissives, and assume too, that our general theoretical structures are in some respects under-determined in this way, then there must be, as we find, successful, self-consistent, and mutually incompatible ontologies

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B: A similar line of reasoning can be used to explain our initial perplexity: How can one be so certain that such-and-such exist, when other thinkers are equally convinced of the contrary? It is, I think, clear that the certainty of our rational belief in the correctness of one theory, depends upon the degree to which this theory satisfies those conditions which we consider important in theory-appraisal. But as long as these criteria vary, as they do both within and across cultures, the degree of success ascribed to a theory as well as the strength of one's belief in the "truth" of its component propositions, will also vary from person to person, from group to group. Thus to the extent that some, if not all, propositions essential within an ontology are unfalsifiable, adherence to one theory of existence in no way precludes the advocacy by others, of rival accounts. In this way A can say that  $\theta$ 's exist and B, with equal sanction, may deny this.

For instance, Smart suggests -- if one holds the view that sensations are brain-processes -- that one can then successfully defend a physicalist position of this kind against all criticisms; but if one rejects such a view, psychic events must then be said to exist in their own and irreducible way. See Smart (2), penultimate paragraph.

Or again, among mathematicians, a so-called 'intuitionist' will ascribe (mathematical) existence only to those mathematical objects which can be constructed, by means of an effective procedure, out of other elements. Thus, e.g. for Brouwer all or some of the transfinite numbers, which cannot be so constructed, cannot be said to exist. But other mathematicians, employing other criteria, will consider the transfinities as existing in the same way as any other mathematical objects. See Kneale p. 672ff.

And again, Feuerbach argues that the experience of the Divine is only subjective, a human projection, and that therefore God, as an objective reality does not exist. But others, perhaps Kierkegaard, holding that reality is in part subjective, can employ the same observations to conclude that the Divine does exist. See Feuerbach, Kierkegaard.

In each of the above, mutually incompatible propositions concerning existents are asserted. Confronted with this, it is normal enough to exclaim: How can this be! But if we consider each of the above assertions, singly, as an intra-systematic consequence of different sets of logical permissives, which are introduced as true within different theories, each then becomes defensible in terms of the opposite theory.

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C: And further, viewing some existence-propositions as logical permissives, helps to explain the presence of fashions and of changing attitudes in philosophy. If some essential premises are merely unfalsifiable, then alternative propositions can be included within other theories. One such theory can, as with Aristotle in his "Metaphysics"

Lambda, provide an intellectual structure in which the changeless and the eternal can be viewed as the final goal and object of desire of all other existents. Or one can, with Democritus, consider motion to be a fundamental property of matter, and the existence of compound objects as due to chance.

Each of the above theories is obviously consonant with a particular type of world-view and hostile to another. Whenever one such view, shall we say style, becomes predominant, theories consonant with this general set of attitudes become the favored ones. At the same time other positions, hostile to the prevailing mental set, are rejected or substantially reworked. The appraisal of some philosophic theory, and the acceptance of the view it contains, together with the rejection of others, becomes in this way, in part, a function of the prevailing general attitudes of the given culture. And these we know too well, are also labile.

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D: And again, given the theory of permissives, we can now account for the negative results of our analysis of the classical approach. For if the existence-propositions contained within an ontology are unfalsifiable (i.e. neither provable nor disprovable) any demand for categoricity in proofs concerning them becomes illusory. And further, unless it might be shown that such theories at all times are fully determined by experience, the belief even in the unicity of truth is immoderate. For lacking such a proof, the expectation that there is au fond one correct description of entities in respect to existence (or one set of logically equivalent theories) remains unjustified.

On the other hand, the view we have been propounding saves what (it seems to us) to be most important within the classical attitude. And this is not the belief in the presence of a unique set of "necessary" truths which in themselves provide the first principles of each science. But rather, what is saved is the more fundamental human

belief in the importance of rational investigation. For, as we have argued, once the unfalsifiable propositions are introduced as true, one can then explore their intra-systematic consequences, and thus a vast body of other statements can then be shown to be true as their consequences. Indeed this, despite their greater hopes, is what the classical philosophers have in fact achieved. For although time has washed away the indubitability of their premises, the conceptual structures they established, in terms of them, remain.

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E: We recall our earlier remark that most philosophers, to some extent, share some presuppositions of the classical approach. And some of these convictions, as we have shown, are indeed consonant with the theory of permissives. I refer, in particular, to the belief in the value and efficacy of rational analysis -- provided that this belief is tempered by the recognition that there may be viable alternative answers to some fundamental issues. Inasmuch as this temperate approach still permits the rational exploration, development, and testing of the adequacy of an underlying vision, I think it retains for philosophy in general, much that has always been essential to it.

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F: And last but not least, this theory of permissives also allows us i) to save what we think is central to the linguistic approach to philosophic problems, and at the same time ii) it enables one to relax the extremely strong conditions which the needs of felicity would otherwise impose upon a language or the associated form of life. To these matters we now turn.

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#7. First let us review some of the points discussed in our long analysis of the linguistic approach. We noted that various interpretations of this position are possible. One might, for instance, consider

it to be purely prescriptive. By this I mean a "philosophic" problem could be defined as an issue due to a misuse of language and any issues unaccountable for along these lines would not then be considered of philosophic interest. But this would make the approach true by convention, and as such dull. If the approach is to be informative, it must apply to nearly all of those issues normally considered philosophical.

Among non-prescriptive positions, one can distinguish a strong and a weak approach. The former claims that all philosophic problems, at least all those normally considered as such, are in fact due to a misuse of language. The weaker approach claims, roughly, that only some philosophic issues are so caused. We found it possible to justify this latter claim in terms of relatively non-tendentious premises. (These we remember were concerned with the sense of statements, with conceptual confusion, etc.) We found, in particular, it was possible to prove in terms of these premises that in all philosophic problems either a linguistic rule or form is misused, or else the appropriate form is lacking in the language. In this latter case, either the expressive resources of the language at a given stage of development are inadequate (in respect to a description of the subject) or the established rules of the language provide no sure guide. Since the theory of permissives and the weaker linguistic approach are compatible, and in fact complement each other in many ways, we need be concerned no longer with it nor with its grounds.

However the strong thesis cannot be justified in this way. We have argued at length that the claim: 'Philosophic problems in general are due to a misuse of language' is tenable only if one presupposes that the language referred to is felicitous. By 'felicity', we mean in part that the rules of a language are mutually compatible in all their applications, and are at the same time complete. By 'complete', we mean, again in part, that whenever a question appears within the language it

is possible to determine, by means of linguistic rules, whether or not this query is significant, and--whenever it is significant and non-factual--to show that there is only one answer, or set of compatible answers, to this question. In such cases, the rules of language can be said to warrant the correctness of such a reply and to interdict all others. Thus if language is felicitous, one can be certain, without further analysis that whenever any irresolvable non-factual issue appears within the associated form of life, that either the question it purports to answer is nonsense, or all but one of the incompatible replies are not warranted by the rules. In either case the problem can be said to be due to a misuse of some rules of the language, a bump we get for running our heads into nonsense. Language, as far as the strong linguistic approach is concerned, cannot be defective.

It is obvious that these conditions are extremely strong. All the more so when one considers the related claim that language also beguiles and entangles one. Fortunately one can relax these conditions a little. If one considers some sub-section of language to be canonical, say that of ordinary usage, the correctness of all other practices can be adjudged, ultimately, in respect to those of the former. In this way if philosophic queries or answers run counter to ordinary usage, they can be interdicted. But this is no panacea. All the acceptable, i.e. nonsense-free replies that do not depend upon matter of fact must also be warranted by the rules. For if this were not the case, and any such replies were merely sanctioned by the rules, the statement of another position incompatible with the first might also be sanctioned by these same rules. Thus the rules would permit the expression of incompatible theories. And yet it is the presence of such mutually incompatible propositions which the theory is supposed to explain. Thus any recourse to the rules of normal usage as canonical must presuppose not only that these rules are all mutually compatible and complete, but also that all exten-



sions of these to novel situations are equally compatible and complete.

Further, this completeness applies not only to language now, but at all times. And even more, considering the facts of language-change, the strong linguistic approach must also claim that language somehow determines the form of its alteration. For otherwise if two philosophers are language-innovators, how is one to adjudicate between their claims? One cannot merely say that it depends upon their viewpoint, that each is entitled to his own. For the judging of a philosophic position and its worth in respect to another, has traditionally been considered a philosophic problem. If one ignores such issues, and considers them unphilosophical, then the strong linguistic approach slides into that of the prescriptive. Thus, however mitigated, the strong approach in general pre-supposes felicity. Further the only other defense of the strong approach, namely that these innovations always remain mutually compatible, is belied by the record.

But -- and here we continue -- defectiveness and felicity of language in these senses are mutually exclusive. And it is evident, if as we have assumed there are no theory-free existence-statements, that the theory of permissives presupposes defectiveness of this kind: language at critical junctures not only provides no sure guide, but on the contrary permits the expression of genuine alternative views. So the theory of permissives and the strong linguistic approach cannot both be asserted at the same time. And even further, the form of the latter is such that if it is untenable, the theory of permissives holds: for to deny that all philosophic problems are due to a misuse of rules of language, is to assert that there are some philosophic problems in which the rules of language have not been misused. But to say this means either: there are no rules, i.e. language is incomplete in this respect; or the rules sanction the expression of incompatible theories.

Thus, in denying the strong linguistic approach, we are led to affirm the theory of permissives. For, we repeat, central to this latter

position is the claim that as language and the associated conceptual scheme develop, one does encounter situations of paramount importance in which the established word-use is either inadequate, or else the rules in force provide no clear unflinching guide. It is in situations such as these, this theory claims, that thinkers are called upon not merely to exercise nonsense and illusion, but to introduce and to explore the elements of a novel vision. This action, although undoubtedly guided by the structure of the existing language is not thereby determined. One must, in a nearly paradoxical way, see through the existing forms of the language to show what is not yet there.

Our last task then in the defense of this theory of permissives is to unseat the claims of the strong linguistic approach. This we shall do by showing the awkward consequences of certain of its key assumptions. But again, we wish to remind the reader that this is not an exercise in philosophical scholarship. We shall quote Wittgenstein to illustrate the strong linguistic approach, but we do not intend to imply that he adheres to this consistently. Rather we are of the opinion that elements of the strong, the weak, and the prescriptive approach may all be found within "Philosophical Investigations". But this does not concern us. Our interest is in ideas, in this case the concept of the strong linguistic approach, and not the bearers of ideas.

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#8. We have noted earlier that the classical and linguistic approaches are alike in their structure. Presumably then, where some features are unsatisfiable in one, analogous features may be unsatisfiable in the other. We have seen how unfounded is the presupposition of the classical approach concerning the knowability (and perhaps even the being) of necessary truths which the philosopher is to discern. Analogous to this, within the linguistic approach, is the assertion that there are rules underlying all acceptable usages of language, and that it is the unique task of the philosopher to observe, to describe, and to apply these.

Wittgenstein is explicit:  
 Philosophy may in no way interfere with the actual use of language; it can in the end only describe it.

For it cannot give it any foundation either.

It leaves everything as it is..." (INV) 124.

And we may not advance any kind of theory. [Und wir dürfen keinerlei Theorie aufstellen.] There must not be anything hypothetical in our considerations. We must do away with all explanation, and description alone must take its place. And this description gets its light, that is to say its purpose, from the philosophical problems. These are, of course, not empirical problems; they are solved, rather, by looking into the workings of language, and that in such a way as to make us recognize these workings in despite of an urge to misunderstand them. The problems are solved, not by giving new information, but by arranging what we have always known..."

(INV) 109.

So much for Wittgenstein. But when we consider the Democritean ontology, it seems totally unlikely that Democritus is merely reporting the rules for the use of 'atoma' and 'keiron'; or that he is only arranging what we have always known. On the contrary both he, and all those who have been directly influenced by his conceptions, have supplanted and revolutionized pre-existing habits of thought.

And it seems equally unlikely that Aristotle, after reporting the various current senses of 'to on', as he does in "Metaphysics" Delta-8, should then proceed to argue that one of these is "obviously" primary if he is merely describing the workings of language. See (META) 10 28a 13ff. And if a description of linguistic rules is his only concern, his procedure then becomes fantastic when he concludes "And so we also must consider chiefly and primarily and almost exclusively what that is which is in

this sense".

ΑΙΟ ΚΑΙ ΗΜΙΝ ΚΑΙ ΜΑΛΙΣΤΑ ΚΑΙ ΠΡΩΤΟΝ ΚΑΙ ΜΟΝΟΝ ΩΣ ΕΙΗΕΙΝ  
 ΝΕΠΙ ΤΟΥ ΟΥΤΩΣ ΟΝΤΟΣ ΘΕΩΡΗΤΕΟΝ ΤΙ ΕΣΤΙΝ.

For clearly here in this key passage he is talking about things and not about language.

Or again, it is extremely unlikely that Aristotle's subsequent analysis of the complex interrelationship between form and matter, the role of definition, and the relation of essence to these, is merely a rearranging of what is already known. And yet these are the problems posed by the theories of existence and of knowledge which he has already established, e.g. within the "Categories" and the "Analytics".

And similarly, we cannot say that Descartes within the cogito is just describing the use of 'être' and 'existence'. Of course one can argue that the notions, as advanced by the above philosophers, are all in a muddle. But as we have noted, muddle or no muddle, they have played essential roles in our intellectual activities (respectively) for quite a few years now. If, as Wittgenstein has taught us, we must not look for perfect clarity, how can we reject the actual value of these ontological views, by citing occasional faults within them? As Gödel remarks, even mathematicians learn to live with an occasional paradox.

Nor can an advocate of the strong linguistic approach fall back (as we soon shall) and claim that each of these philosophers in his ontology plays his own language-game. For the introduction of any novel view demands a new way of seeing, of thinking, and of talking. In view of this it then becomes strained and metaphorical to say that these philosophers are "describing" the workings of their language. This is as much a way of describing language as a doctor -- feeling his own pulse beat in his thumb -- can be said to be measuring that of his patient. No, these thinkers we have mentioned can hardly be said to leave "everything as it is".

One might try to argue that considerations of this kind which we have illustrated in terms of Democritus, Aristotle, etc., are extraneous to philosophy, that philosophy is and only is an analysis of the

intellectual states which create confusion, and that its matter is restricted in this way to a study and application of the workings of language as it is:

It is the business of philosophy, not to resolve a contradiction by means [for example] of a mathematical or logico-mathematical discovery, but to make it possible for us to get a clear view of the state [say] of mathematics that trouble us: the state of affairs before the contradiction is resolved" (INV) 125. See also (INV) xiv for a similar observation in respect to the state of psychology.

But if this is so -- and philosophy is to be guided by language in performing its task of investigating and removing confusion -- then the above quotations are not a part of philosophy. For surely nothing in the sense of 'philosophy', even in its deepest workings, warrants one to write the above. Or again, when Wittgenstein claims that in philosophy we take words down from their metaphysical to their ordinary use, there is nothing in the ordinary use of 'philosophy', 'metaphysical', etc. which permits him to say this.

One might claim that I am trivializing this position. Indeed I am. For I wish to point out that all seminal thinkers introduce a new way of seeing. It is self-defeating to exclude this feature of philosophic activity.

Thus a linguistic approach, if it is to be advanced as an explanation for the presence of philosophic problems, or even just as an operative guide to their elimination, cannot say that philosophers merely describe language; that they leave everything as it is. For this flies in the face of countless examples, including even the activities of Wittgenstein.

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But the strong linguistic approach seems to demand this assertion. Otherwise whenever language proves defective and a new way of seeing and of talking is required, unless all are in agreement concerning the new vision, issues -- fundamental issues -- then develop concerning

the acceptability of this view. (The present controversy concerning the adequacy of, what we have considered, the linguistic explanation is a case in point.) For if alternative visions and alternative explanations are introduced, and each is self-consistent and is not interdicted by the accepted rules of language, the presence of such rival formulations provides an issue which itself is not due to a misuse of language. And yet if these are not philosophic issues, what are they?

On the other hand the strong approach cannot claim that such issues are not philosophical. For this then is to prescribe a new meaning to 'philosophic issue'. This of course can be done, for definitions like hypotheses are cheap. But then this approach in no way explicates the presence of such issues, nor provides any guide to their removal. The strong linguistic approach must then be reformulated: Among philosophic issues, there are those which we call 'philosophical', and these are due to a misuse of language.' This is eunuch's talk. Thus, these other expedients proving inadequate, the advocate of the linguistic approach must ultimately rely upon his fundamental presupposition that language is felicitous, and thereby such issues never really occur. But one must have an extraordinary (shall I say?) piety in respect to language, to claim that it is felicitous at all times. I cannot. Nor are there sufficient number of examples to show this. In fact both Wittgenstein and Ryle, in their criticism of the notion of an irreducibly "mentalist" language, have to fight against those very features of language which anyone but a philosopher would call normal.

The fundamental fact is clear: the need for felicity, namely the demand that the rules of language be compatible in all their applications and complete, however awkward remains (I think) an inevitable consequence of asserting the strong linguistic approach.

To summarize: One cannot claim, without an extraordinary distortion of the record, that those philosophers who have established significant ontologies have merely reported the workings of their language.

Nor can one exclude the role of visions, such as theirs, from within philosophy. Even the statement which would reject this, being part of a novel vision, could not be accepted as a philosophical observation. And further, if philosophy is so restricted, whatever informative value the linguistic approach might seem to bear as an explanation for the presence of philosophic problems, is now dissipated. For its thesis becomes a trivial consequence of its own prescriptive definition of 'philosophy'. On the other hand, if one is to maintain the conventional use of 'philosophic problem', equally serious difficulties develop. Cardinal among these: any language to which the strong linguistic approach is applicable must be felicitous. But this condition is hardly satisfied by natural languages as we know them.

Either way the difficulties seem fatal. If we maintain the strong approach and presuppose felicity, we run counter to our own experience of language -- and of philosophic history. But if we countenance the partial breakdown of language and thereby accept a nonsense-free aetiology of some philosophic problems, we must deny the strong approach.

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#9. 'But have you forgotten', an advocate of this approach now objects, 'we can also make up rules as we go along. This is what a visionary -- or a revisionary -- thinker does. He introduces another language-game. As long as the rules he lays down are compatible in themselves and conform to certain general facts of nature, they need not be warranted by any other rules of the language. In this way, different thinkers can establish different language-games of 'existence'. After all, is it not like talking about the parts of a chair? We speak of chairs as 'composed' of wood within one game, and as 'composed' of molecules within another. Similarly there is no problem about 'existence' either -- as long as we are clear about which game we are playing.'

Unluckily the advocate of the strong approach has been misled

by his own words, the analogy fails. The language games of 'simple constituents of the chair' are not typical of the philosophical problems which concern us. For in the games the objector has mentioned, as opposed to others we shall refer to, the result of the application of the rules of different games for 'constituent' are mutually compatible. If, for instance I say: 'The chair is composed of molecules' I do not deny: 'The chair is made of wood'. Language merely shifts, as it were, the scale of magnification so that different features become prominent. But the bringing of one set of features into focus, e.g. those of molecules, does not lead us to consider that any talk of the chair-as-composed-of-wood is thereby absurd. On the contrary, acquaintance with the rules of one game, or in equivalent terms knowledge of the characteristics of the molecules, permits us to infer certain rules for the use of 'wood', and the converse. What does happen, if we compare these two uses of 'constituent', is that some rules of one game are declared inoperable within another, and so certain assertions together with their negations cannot be made. It is like trying to evaluate the square root of five within the theory of integers.

On the other hand, consider typical philosophic issues concerning existence. Within one such language-game, say that of Aristotle, this chair can be said to be colored: to-be-colored, within this game is as much an objective property of this seat as having-an-expression is for this face. Within this view, were there no human beings, the world would be as full of color as it is now. But for Democritus, as we have seen, color exists only as a subjective phenomenon: in a world devoid of sentient creatures, there is no color. Thus the rules of these two language-games are mutually incompatible in their application. Within one it is warranted to say: 'This chair can be red'. Within the other, this same proposition, is interdicted: 'The chair cannot be red'. Here, unlike ordinary language-use, compliance with the rules of one game makes it impossible to follow those of the other.



Or again, when Smart claims that sensations are brain processes, we can say, according to his rules for the use of 'exist', that this term may be significantly conjoined only with the names of material objects and the events and processes which they constitute. Any other appearance of the term is eliminable. However, to deny this view is to introduce another language game in which 'exist' may also be combined with the names of irreducibly immaterial objects or states, etc. Here again, to comply with the rules of one game is to run counter to the rules of the other. Nor as in the example of 'wood' and 'molecule' can one infer the patterns of lexical entailment holding within one game, on the basis of the other. On the contrary many inference-patterns warranted in one, are expressly interdicted within the other. It is not a case here, as above, of some rules of one game becoming inoperable within another. For it is significant to say that colors exist as objective properties of things, in both the above views: or that immaterial entities, such as sensations, exist. Rather what is characteristic of all such games -- and the reason for the intellectual furor associated with the appearance of mutually incompatible positions -- is that the rules of one game warrant moves that are explicitly interdicted within the other. Unlike normal language-games, the above just do not unpack one into the other. Compliance with the rules of one, prevents adherence to the rules of the other; if one is committed to one, it is impossible to follow the other; it is like trying to sneeze and swallow at the same time.

Thus the advocate of the strong linguistic approach cannot save himself from the dilemma, posed at the close of the preceding section, by talking in this way about different language-games for 'exist'.

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'But is it not possible to be clear even then?'. In a restricted way, 'Yes'. But only in a limited way. One can occasionally, as in the use of 'wave-particle' apply mutually incompatible formulations in a given situation, successively. But this then imposes a restriction

upon the generality and the interchangeability of the statements one makes and is to be tolerated, as the example of the wave-particle testifies, only in extremis. Intellectual parsimony demands that restrictions of this kind be minimal. For if such exceptions were to become the rule, each statement that one made could then be combined only with others in the same game: in terms of A, 'p' follows, in terms of game B, 'q' follows, in game C 'not-p', and in game D, 'not-q', etc. Statements so quarantined would be nearly useless. We could never combine such statements into one homogenous body of propositions: it would be like a four-wheel drive in which the front and rear wheels spun round in opposite directions.

We return then to our previous point. The fundamental distinction between ordinary language games, such as those concerning the composition of the chair, and those one encounters in philosophy, for instance concerning existence, lies in the relation between the rules of any two such games. In the former, if there are, say, two games, A, and B, the rules of A will permit certain moves in A which are at the same time inoperable in B. For instance, you cannot say: 'I will buy a piece of molecule', the way you buy a piece of wood. And since these moves are inoperable, you cannot employ the negation either. E.g. you do not say: 'I won't buy a piece of molecule'. And in this way, one can in general move from one established language-game of the language to another without generating contradictions. Language is felicitous in this respect.

But in certain cases, in which there is a partial breakdown or a defect in the established language-games, one cannot make such a move without introducing these contradictions. Within one such game it is legitimate, for instance, to say that colors are objective properties of material things and that in the final analysis colors are irreducible components of the universe. Within another game both these claims are denied with equal warrant. Thus it is typical of certain philosophic issues for a statement to be warranted in terms of one language-game and

to be denied within another.

One can, as noted above, quarantine statements of this type and restrict each to its own language-game. But ad hoc expedients of this kind are only to be introduced in extremis. For either we must conditionalize the results of these games, or else permit the contradictions they introduce to contaminate an entire conceptual scheme. Yet, if we cease to employ these games, our initial perplexity remains: the established rules of language present us with no sure guides to answer certain significant questions which appear within it. Yet if we answer these, incompatible replies appear.

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This, I think, brings any advocate of the strong linguistic approach to the precipice. He must claim one of the following:

i) Such queries are nonsensical. For example, the questions concerning existents and their order, which we have studied in the language of ontology, are meaningless. With the possible exception of questions of the form: What exists?, we have I think shown that answers to the other queries are meaningful. And within the following chapters we will argue for the significance of the former.

ii) Issues concerning these queries are not philosophical. But this he cannot. For the strong linguistic approach purports to explain the cause of all philosophic problems. (Were this not so, one would be back in the days of Aristotle who was well aware even then that some philosophic problems were due to a misuse of language.) Thus it becomes a curious explanation which -- by prescriptive definition -- ignores some of philosophy's most typical and recurrent issues as of no philosophic interest.

iii) We can countenance the presence of mutually incompatible statements of this kind, as long as we are clear about how they are used. But I do not think we can be clear about how they are used. Imagine two such language-games for the word 'good'. In terms of one we can say, 'It is good to do  $\Phi$ ', in terms of the other, 'It is not good to do  $\Phi$ '. But these

language-games are directly associated with concomitant actions. Sooner or later the difficulty appears: no matter how clear we are about the use of these words, what we have to determine is not grammatical, but which grammar, which game is to be used. And by hypothesis this issue cannot be due to a misuse of language. Thus, although we may be clear about the rules for the use of the word, however incompatible, we cannot use these words, in any extended sense of 'use', without asking just those questions about the language-games themselves for which the rules of language provide no clear guide. Also, as we noted above, there are further difficulties. If we quarantine these uses, all discourse employing them becomes conditional. And this runs counter to the general demands of language that its statements be both freely interchangeable within the broadest range of different contexts, and at the same time that they be subject to the fewest number of ad hoc restrictions.

Thus any attempt to relax the need of felicity along these lines, and to consider that the introduction of novel visions is on a par with the performance of other language games in the established parts of language is to overlook the essential differences between them. To talk about the components of a chair in this way is beguiling. But the analogy misleads.

iv) The above issues are due to a misuse of language. But in terms of the above, this is impossible. For, by hypothesis, these incompatible statements appear where language is defective, and so cannot be said to be misused.

v) Language is indeed felicitous and the breakdown of its rules, in the above way, is impossible. Again the strong approach demands that felicity in

language which it seems no natural language can provide. And again -- if one is to make this claim -- the burden of proof that language is felicitous in this way lies not with us.

The whole tenor of this analysis has been to show the awkward consequences of the strong linguistic approach, and thus to argue persuasively that this position in its uncompromising form lacks credibility. But, as we have noted, the denial of the strong approach, i.e. 'It is not the case that all philosophic problems are due to a misuse of language' entails 'Some philosophic problems are present where language (and by extension, thought) is correctly used'. And this, of course, is a fundamental tenet of the theory of permissives. Q.E.D.

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#10. Further, if one asserts the theory of permissives, one also saves what we believe is of fundamental importance within the general linguistic approach. For if the theory of permissives holds, we can indeed say that particular language-games, say some games concerning 'existence', are felicitous and (to the extent that they prove to be successful) complete. Thus rules for the use of 'existence' within one such game would prevent the formulation of mutually incompatible existence-claims-within the game. Given this, we could then rest assured that, were conflicting claims to be asserted within an ontology assumed to be self-consistent, clearly someone had made a mistake: some rule of this language-game had been broken. To permit the introduction and exploration of the consequences of a novel vision as a philosophic task in this way, is not to preclude the removal of intra-systematic nonsense.

Likewise, within this view, language -- as opposed to a particular language-game -- need not be fully felicitous. It may at any time contain extensive areas in which mutually incompatible rules are equally appropriate. This in itself is sufficient to explain many linguistic

entanglements -- and eliminates the awkward need to associate felicity with natural language.

And again, if language and the patterns of thought associated with it is defective or incomplete in some aspect, to correct this deficiency the associated form of life would not only countenance but actually enlist the introduction of novel viewpoints. Thus the task of philosophers cannot be restricted to the depiction of language as it is. Indeed it is more consonant with our experience of language-use to consider rules and the associated conceptual patterns, even the most sacrosanct, as alterable -- and where need be removable. Indeed, responsive to shiftings within our form of life, other rules perhaps non-existent at an earlier time, can be introduced as canonical. (And I suppose, when the chips are down, this is precisely what much ordinary language philosophy proves, in fact, to be. Wittgenstein, for example, might be right in his analysis of psychology referred to above: our commonly accepted notions concerning what is private, what is self, what is pain, may be in a muddle -- and his analysis certainly clarifies this. But only pious adherence to the linguistic approach can possibly maintain that such an investigation really describes the rules for the normal use of the associated terms.) The rules of language (we submit) need not provide a timeless bed-rock, or an enduring core, but -- like the earth we know -- a shifting crust whose particular features and reliability varies from age to age. And this too accords with our observations.

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And lastly, we are now able to give substance to our earlier hypothesis that there is one stratum of language in which fundamental philosophic issues typically appear. It is one as we have argued, not characterized by nonsense. Rather its distinctive feature is the presence of propositions neither provable nor falsifiable, and yet of fundamental concern. It is the presence of such pairs, or n-tuples of un-

falsifiable propositions and, the concomittant possibility of developing genuinely alternative, mutually incompatible theories containing these, which typifies this level of language. That 'existence' occupies a pre-eminent place within this stratum, I trust by now is obvious.

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#11. One might try to turn the argument against us. 'If some philosophic problems permit alternative solutions, might not the subject of philosophic problems itself be a philosophic problem, and as such permit alternative solutions? Accordingly your explanation for the continued presence of issues concerning existence may be only one among various explanations. On what grounds must we accept yours?'

To be brutally frank: none. I have been content to establish certain starting points and to explore their consequences. This I have done. But I am cognizant that in terms of another vision, different consequences might develop. Thus, generally speaking, there is nothing to preclude the possibility that, within another view, existence-propositions might be considered with good warrant to display other features. For instance we argued, a long time back, that there was no need to consider the principle of contradiction as a principle in things; a rationalist, starting with other bases, might reach a contrary conclusion. (In this respect see Fitch Ch. 3, 11.19, in which there is a proof to show: the laws of logic are included among the laws of nature, but not vice versa.) But since we are, consciously, not a rationalist, we are not troubled by such a consequence.

So much for a general answer. But specifically, I think, in terms of a common conceptual scheme, I am correct in pointing out that the existence-propositions we have studied are merely unfalsifiable although essential. Thus a rival explanation would (unless it modified vast areas of this scheme) have to claim (would it not?) that either (1) the construction of an ontology was unimportant, or (2) not a proper

philosophic activity, or else (3) these propositions corresponded so closely with what is the case that although unfalsifiable they were uniquely true. We have already discussed the second possibility and found reasons to reject it. And as for the first and third, it must first be shown that they represent genuine and defensible alternatives. Thus although I accept the criticism in general, I do not see how it can make less credible the conclusion we have argued for, concerning the role of existence-propositions as logical permissives.

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#12. To summarize: From the very start we have been concerned with the apparent inconclusiveness of most philosophic discussion concerning existence. We have been troubled with the fashion with which one philosopher asserts that so-and-so, or such-and-such exists, and another -- with equal assurance -- denies this claim. We have noted further that nearly any theory of existence (provided it is not manifestly absurd) not only can be but has been strenuously maintained by some philosopher -- and denied with equal conviction by another.

An analysis of this clue leads to an equally puzzling conclusion: not only are statements about existence unprovable in any timeless, categorical manner, but even if one considers only the concepts in force at a particular time, there seems to be no assurance that equally credible -- and mutually incompatible -- existence-claims may not both be asserted.

We are now in a position to explain this. The source of these anomalies arises in one's expectation that propositions of this kind are all intrinsically statement-like. If one does believe this, then given two mutually incompatible assertions of existence, it is evident that one at least must be false. But if, on the other hand, certain propositions of this kind are not statements at all, there need be nothing



perplexing about their apparent incompatibility: if the function of such propositions is not to state timeless, objective truths, but rather as logical permissives to authorize one to talk about existence in a particular fashion, it is amiss to consider such propositions as either true or false, and certainly it is then grotesque to compare them in this respect. If we follow the suggested approach, the response appropriate to certain philosophic issues is to introduce, and to explore the consequences of novel visions.

We have argued and illustrated, that propositions employed to establish an ontology need neither be true nor false. It is sufficient that their statement-analogues, and their consequences, prove unfalsifiable. It is not just that the establishing statements of an ontology happen to be unprovable. They are unprovable specifically because the propositions that authorize their expression are neither determined nor fully warranted by the general facts of nature or the form of life which surrounds them. But if this is so -- and outside of an intuitive repugnance to countenance such a state of affairs, we have found no counter-evidence to this -- then alternative theories treating the same questions although mutually incompatible may be nevertheless, severally viable.

Once this feature of certain existence-propositions is provided for, the theory of permissives can then include the less contentious features of both the classical and linguistic approaches. For if a given set of permissives, for instance the establishing propositions of some theory of existence, are treated as true by the advocates of some ontology, then these philosophers are free to explore the logical consequences of the premise set so established. In this way, although our approach can dispense with the awkward claim of the classical position (concerning the timeless necessity of its premises) it can nevertheless maintain the importance of rational analysis, performed upon the premises one does hold.

Further, according to our view, if one misreads philosophic queries and considers all of these as requests for answers which are to be true or false, simpliciter, then in doing so one clearly misuses the rules of the language stratum in which such questions typically appear. If this extended sense of 'rules of language' is permitted, our position can then be said to be akin to that of the strong linguistic approach. But the differences are still marked. For we stress the point that queries of this kind appear whenever ordinary language, or the established conceptual patterns, prove either to be defective or to demand modification or supplementation. In contrast to this, if the claims of the strong linguistic explanation are to be justified, language must be felicitous. This we have suggested is most awkward. Although we do not wish to deny the importance of nonsense-removal, nor minimize the beguilements of language, the theory of permissives avoids this difficulty concerning felicity -- just as it eschews any reference to first principles. Thus this approach, to make a poor pun, is itself permissive. It accepts the thesis that many philosophic problems are due to nonsense of one sort or another. But side by side with this it establishes its further claim: some fundamental issues arise not out of our failure to comply with the established rules of language, but out of a failure of language itself to provide an adequate guide. Although I do not wish to assimilate this position to that of Strawson, we agree concerning this:

..the discriminations we can make [on the basis of the actual use of words] and the connections we can establish, in this way, are not general enough and not far-reaching enough to meet the fully metaphysical demand for understanding. He [the metaphysician] must abandon his only sure guide when the guide cannot take him as far as he wishes to go"  
 "Individuals", p.9-10.

And it is in respect to the presence of such, shall we say, indissolvable

philosophic queries -- and to the importance of providing answers to them -- that we differ most markedly from the Wittgenstein of "The Investigations".

Thus, in general, we have solved our initial problem, and argued for the credibility of this solution both in its own terms and in respect to the position of rival theories.

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#13. There does remain, however, a not small final question:

If we assume the universe to be one, how can two rival methods of describing it, if comprehensive, both hold?

We have already suggested the answer: whatever theories we build upon experience may be undetermined by this experience, and thus the theoretical component of one ontology may serve to create a structure remarkably different from that of another. We must now show this and in so doing also substantiate our claim concerning the theory-laden quality of ascriptions of existence contained within nominally descriptive statements. This will be a good time, too, to argue more conclusively for the meaningfulness of existence-statements. But since this thesis has already far overstepped its normal size, with the excuse of imminent mutual exhaustion, we shall permit ourselves the liberty of merely sketching out the line that a fuller discussion might take.

## CHAPTER THIRTEEN

### 'Exist' - I

#1. In twelve chapters about existence-statements, we have talked about the meaning of 'existence' only once. In this we have been guided by the principle: analyze no finer features of the subject than those necessary for the study in hand. But now the questions before us are such that a finer analysis becomes requisite. For all of these issues, in one way or another, concern 'exist' or 'existence'. And to this matter we now turn.

The reader will recall that by 'existence-sentence' we mean: a sentence in which the word 'exist' ( or a functionally identical term) appears in essential occurrence'. And by 'essential occurrence' we mean in this case that such a term (e.g. 'exist' or 'is an existent' or 'is a constituent of the universe') cannot be replaced by 'have the property that', within a given sentence, without reappearing within this same sentence. If this distinction is significant then there must be some method of distinguishing between the role of the 'is' of predication -- which is so eliminable -- and the 'is' of existence of the word (or 'exist') which is not.

Let us call the former 'predicative-is'. Predicative-is, together with an appropriate predicate expression can be conjoined with any entity-term to form a true sentence. For there is no entity of which some true statement cannot be made in this way. But if 'exist' is significant, there must be some entities to which we cannot truthfully ascribe existence: elves perhaps.

Admittedly some philosophers seem to ignore this distinction.

It is in this egalitarian spirit that Quine writes:

' $(\exists x) Fx$ ' may be used without further distinction to symbolize any of the following:

There are F      Some things are F      F exist      ,"

Quine (2) p. 86.

But Quine, in another context, also implies that distinction<sup>s</sup> can be made.

For apropos of the theoretical eliminability of singular terms, he says:

The objects whose existence is implied in our discussion are finally just the objects which must, for the truth of our assertions, be acknowledged as "values of variables" -- i.e., be reckoned into the totality of objects over which our variables of quantification range" Quine (2) p. 224.

Thus we are committed to assume that 'x exists' is true if ~~and only if~~ some statement of the form ' $(\exists x) \dots x \dots$ ' is true, and x within this latter is non-eliminable. As such -- assuming that some appearances of individual-variables are eliminable -- the class of all entities assumed to exist is only a proper part of the class of all entities mentioned in true statements; and existence is assumed -- Quine asserts -- whenever a non-eliminable bound variable occurs within these latter. Thus there is no fundamental opposition between the position of Quine and ours, in respect to the viability of the distinction between predicative and existential<sup>s</sup> is.

Carnap, on the other hand, admits this distinction but considers it to be at best nearly trivial:

If someone wishes to speak in his language about a new kind of entities, he has to introduce a system of new ways of speaking,

subject to new rules; we shall call this procedure the construction of a linguistic framework for the new entities in question. And now we must distinguish two kinds of questions of existence: first, questions of the existence of certain entities of the new kind within the framework; we call them internal questions.

Carnap illustrates this by introducing rules for the use of 'five' and 'number'. He then proceeds:

What is now the nature of the philosophical question concerning the existence or reality of numbers? To begin with, there is the internal question which, together with the affirmative answer can be formulated in the new terms, say, by "There are numbers" .... This statement follows from the analytic statement [i.e., analytic according to the rules of the framework]: "five is a number" and is therefore itself analytic. Moreover it is rather trivial...because it does not say more than the new system is not empty; but this is immediately seen from the rules [of the framework] that words like 'five' are substituted for the new variables"

Carnap (1) 2, paragraphs 1, 8.

External questions, on the other hand, concern the "existence or reality of entities as a whole". Philosophers for instance claim that they are interested in "the ontological status of numbers...whether or not numbers have a certain metaphysical quality called reality..." (ibid., paragraphs 1,8). Carnap then comments:

Until they [philosophers] supply a clear cognitive interpretation,

we are justified in our suspicion that their question is... one disguised in the form of a theoretical question while in fact it is non-theoretical: in the present case it is the practical problem whether or not to incorporate into the language the new linguistic forms which constitute the framework of numbers" Ibid., paragraph 8.

Thus, in any cognitively significant use, 'X is' (or 'X exists') tells us only that there are some entity-terms available within the language to which the schema '...is an X' can be conjoined to make a statement in the language. As such 'exist', when significant, describes the grammar<sup>11</sup> of a language and any stronger claim, say, concerning the "reality" of X is confused. Any assertion of this latter kind is merely a disguised way of talking about the advisability of adopting such a language.

We have already instanced the theory-laden nature of 'exist', and so Carnap's observation concerning the framework-dependent usage of existential-is remains consonant with ours. We differ in its significance. Our aim then in the following sections is to establish an intellectual structure in terms of which we can clearly distinguish between predicative and existential use, and show that this latter is far from trivial.

. . . .

#2. Predicative-is appears typically in English as the first element in a verb clause that, combined with a noun clause, forms a sentence. (And thus its name from the traditional grammatical distinction between subject and predicate.) As we know similar structures appear in German, French, and Greek, etc. However, this same distinction between subject and predicate-terms plays a minor role in some languages, e.g. Chinese -- and there are even some languages in which it is reported not

to hold at all. (See Carroll p. 44 concerning the Pacific Indian language, Nootka.)

In view of this, might not the subject/predicate distinction, together with its conceptual analogue of individual/property-of-individual, represent only a provincial feature of our language and of our form of life? (Indeed a thorough-going application of these distinctions becomes strained even within our conceptual scheme: as in the case of numbers and of sub-atomic particles.) This, together with the extreme complexity of the subject of predication, suggests the distinction between thing and property may itself depend upon more fundamental features, that strictly speaking are not to be conceived of as either exclusively thing-like nor property-like. Whether or not there are such, let us call these presumed features, 'Items'. (An item is, or would be, that out of which things and properties are constituted; or better yet: item-terms, grouped in one way, form the definiens of property-terms and, grouped in another way, thing-terms.) Given these it might then be possible to construct the further distinction between entity and existent out of these same basic items. Were this the case, then 'thing', 'property', 'existent' would all be definable, and the distinction between a thing <sup>having</sup> a property, and a thing's existing could be established in this way. All of this is of course merely a conjecture: still, it is our strategy.

...  
 #3. In adopting this approach, it is well to recall that we have restricted this study to that of entities which can be considered as one. The term 'one' also appears implicitly in any ascription of existence. For it is names, or definite, or indefinite descriptions which are to be



inserted into the dot or dash sequences: i.e. the name of one individual, or a description of one and only one, or of any one is employed. Thus 'one', or a term functionally identical with it, must appear at least implicitly in the statement of any ontology expressed in natural language. Nor can such terms be eliminated by rewriting these ascriptions symbolically. Any customary rephrasing of the above idioms must again contain individual-terms or variables. (This also applies to an ontology composed exclusively of classes: for in such a case, classes--or those of the lowest order--are the individuals of the system.) It would seem then that some application of the notion of being one thing, which underlies this use, is presupposed in any meaningful statement of an ontology. This is not a startling observation. After all we do have the traditional dictum that 'Being' and 'One' are convertible terms. Convertible or not, a likely tactic suggests itself: analyze the notion of **unicity** in terms of items, and then distinguish along these lines the sub-class of units which are assumed to exist from the larger class (if it is larger) of entities to which predicative-is applies.

Admittedly it is difficult to articulate the sense of this notion of unicity. We can distinguish, intuitively, between groupings of predicate-terms which seem to actually describe an object, from others which we consider to be nothing more than a string of terms collated at random. We might say in the first case that the string of predicate-terms is used to characterize an object whose properties are independent of the sentence-utterance; and in the second, it is the sentence which confers unity upon the assembly of predicates. But any string of predicates, even if joined at random, has some shadowy unity. We are hard put to find

general grounds which might justify the ascription of unicity only to some.

The variety of types which one has to consider as a unit further complicates this problem. What for instance <sup>is</sup> a rock, a shilling, the solar system, the number Two, and the French Revolution in common? Yet we can say of each that it is one thing, or one class, or a unique event, etc. Or on what basis can we say that two men have the same thought? What for that matter have I in common with a particular infant born some 45 years ago and named 'Howard Friedman'? Or again, what is it which permits one to call a table the same even if, at various times, each component - the legs, the top, the drawer - has been replaced? On what basis do we consider all of these to be one?

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Let us concede before the objection is voiced, that the use of 'one' in 'one man' maybe different from that in 'one number' and 'one table'. But it is improbable that the various instances of a notion, which appears to be as basic as this present one, should have nothing in common. This, of course, is only an assumption at this stage. If it is correct then there must be a criterion, or a set of different criteria which govern the ascription of unicity. It will be the task of the following to give substance to this surmise. Of course one might try to claim that such a study is trivial, pointing out that anything can be considered to be a unit. Yes -- we reply -- but something can be considered to be a unit in one respect and not a unit in another. On what grounds, we ask, does one distinguish?

#4. A key factor in the notion of being one, is the related notion

of that-which-is-invariant in respect to change. E.g. as noted earlier, the shape of a rigid physical body remains the same at all times if no outside forces are applied to it: its shape is invariant with respect to a change in time. Time of course is not the unique variant of this type. For instance, an equilateral triangle standing on its apex is similar in shape to one resting on its base: its shape is invariant in respect to changes in position. Nor need time and space be the only frames of reference. For instance, the wall of the house opposite me is generally considered to be the same wall whether it is bathed in moonlight or in the garish yellow of a street lamp: the wall is said to remain the same in respect to changes in the quality of the light which strikes it. Nor need one limit a consideration of invariants to material objects. For instance, we can say that the truth of some statement of propositional logic is invariant in different types of logic, or that the sense of an idea or of a thought is invariant in respect to translation from one language to another.

To say this is one thing. But what do we mean in each case by this invariance?

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To answer this, let us look at how the words for time or space or color in the above examples display a peculiar type of ambiguity. This will become clearer if we consider examples. In some cases we say that Color, or to-be-colored is the definite property which all colored things have in common. As such 'Color' is substantive: it names the property common to all members of the class of colored things, and in an extensional logic is indistinguishable from the class-name itself. In a related way we can say that 'Time' is also substantive: it names the class

(or perhaps the ordered n-tuple) of all durations, or of all points on a time scale.

But on the other hand, 'color' as in 'Green is a color' is used adjectively and can be ascribed to any member of the class of colors. Similarly, 'time' as in 'a time'. In this adjunctive construction, does not name but incompletely describes any member of a class of points on a time scale.

It is because of this duality of use that one says in a loose way that length, time, etc. are variable quantities, or in technical parlance 'parameters'. It would be more exact to say, and we shall adopt this procedure, that the morphemes 'time', 'length', 'color', etc., when used as definite terms, name a particular entity. (As the case may be this is either a class, an ordered n-tuple, or a class-property.) But these morphemes also occur in indefinite descriptions and in this latter use they do not name. They describe an entity, e.g. an x that is a specific instance of Color, without specifying the instance. (For all colors can be further specified, as in, e.g. 'a color that is bright yellow'.) Within the first use, 'Color', for instance, names a class. Within the second 'color' is used within a phrase to indicate that the entity, to which this property is ascribed, is a member of the named class.

Whenever an x is incompletely described in this way by means of an expression of the form 'an x that is a e', we shall say that x is an 'instance of e'. (When appropriate, we shall say that x instances e.) In either case by 'an instance of e' we mean a 'member of the class, or ordered n-tuple of elements, e.' It will however be convenient to restrict discussion to those instances which, when further specified, can be assigned

a position within a frame of reference. Thus to say that a is a color in our usage, places a in an unspecified position within the frame of reference of a color-space; to further specify this, i.e., to say that a is bright yellow is to assign one definite position (or zone) in this color space to a.

We can now proceed to define 'invariant'. For when we say that a is invariant in respect to all changes in a reference-frame, say that of time, we mean that at any instance of time, a is unchanged. Since few things are absolutely invariant in this sense, let us say that a is invariant in respect to all changes in some portion of a reference-frame. Or generally:

y is invariantly F, in respect to a change of position in some portion of a reference-frame,  $e$ , = DEF

if at one particular instance, within this portion of  $e$ , y is F, then y is F at any instance in this portion of  $e$ .

For instance, if through a certain period of time matter is neither created nor destroyed the total quantity of matter can be said to be invariant with respect to any change in this portion of time. Let this quantity equal k. From the above if matter is k at some such moment of time, say  $t_1$ , then matter is k at any such moment of time, i.e. at  $t_2$ ,  $t_3$ , and some  $t_n$ .

. . . . .

#5. The above formulation covers the invariance of a property ascribed to an individual. But our present intent is to clarify the notion of unicity without reference to such individuals. We must formulate 'F is

invariant' -- and not 'y is invariantly F'.

Let us in this connection consider Protocol Otto's 'Red here now', for this seems to be a meaningful proposition although it mentions no obvious individual to which the predicate is ascribed. Evidently, the ego-centric terms 'here' and 'now' must be interpreted within a context which involves either an individual speaker, or a fixed position in time and space. But, aside from these, there is no other individual to which the predicate 'red' must be ascribed. By an awkward, but not forced construction, one might paraphrase 'Red here now' to read 'That part of time and space indicated by Otto is red'. Red in this way becomes the property of certain conjoined instances of time and space: some specific stretch of time and space <sup>is</sup> red. Under this interpretation, 'Red here now' is of the form 'a is F', where 'a' names that part of time and space indicated by Otto at the moment of his utterance, and 'F' stands for red.

At first glance this interpretation seems bizarre. Normally we say 'The wall at a is red'. But even in ordinary language this construction is not always necessary. We say: 'The time is opportune' or we might describe the intersection of two colored shafts of light by saying 'That point is yellow' or 'The space there is yellow'. Similarly, we say 'Each space on the chess board is empty', or 'The space between Earth and Mars is streaked with meteorites'. In each of the above cases some predicate, whether 'yellow', or 'opportune' or 'empty' is ascribed to a specified point or zone <sup>is</sup> some frame of reference. In this way, aside from some point(s) in an apposite reference-frame, a predicate-term may be introduced into a sentence without mention of any other individuals to which the predicate is ascribed.

Of course, in most cases we do not speak this way. We say: 'The cat is on the mat, there', and do not stammer a string of predicate-terms: woolen, rectangular, mat-like, with furry, domestic, and feline upon it, there'. But the claim I wish to make is -- provided some apposite frame of reference is available to position <sup>the</sup> predicates mentioned -- a reference to customary individuals is theoretically eliminable.

Admittedly again, this is not the usual procedure. Normally we say 'Something is F at a point p'. But I should like to suggest that this latter use need not be the fundamental one, and specifically that it may be built up upon an epistemically earlier stage, one in which our hard and fast distinction between property and object has still to be established. Color words such as 'red' can be said to both name the color, Red, and partially describe instances of it. But the one morpheme 'red' might also be said to designate-and-to-describe still indistinguishable features of experience; ones to which both 'that which is the property F' and 'that individual which has the property F' are equally applicable. For given some identifying reference -- and this presupposes only one reference point, i.e. that of the speaker -- it is possible to imagine how all the data of a still loosely structured experience can be related to this one point, without introducing a categorical distinction between thing and property-of-a-thing. And certainly this surmise is consonant with our knowledge of perception. For in the last resort that which we discern are not things and events with their associated properties but items such as color-shapes and sounds, etc. at a particular distance from us. These minimal discernibles of our sensory apparatus are, we suppose, the first elements in that long chain of commands whose final product is that complexly ordered structure

we call the world.

The irreducibility of the distinction between thing and property need not be questioned merely on an epistemic level. For as we have noted its linguistic analogue -- the subject-predicate construction -- is not a linguistic universal.

And further, as we know, the language of mathematics -- as distinct from that of its foundations -- works smoothly enough without this distinction. Lastly, not only mathematics but much of logic also implicitly or explicitly avoids any unbridgeable division between the substantive and adjunctive uses of terms. For instance, the substantive 'Men' and the adjunct 'a man' must be interchangeable within the syllogism: 'All men are mortal, Socrates is a man, etc.'

But these are stronger points than we need make. All that we must maintain is the theoretical possibility of employing a neutral substantive/adjunctive term such as 'item'. Whether there are such items in our experience, or whether their existence is presupposed in traditional logic does not concern us. We have mentioned these points only to make this exposition more credible.

However, to avoid awkwardness of expression, we shall in the sequel continue to use 'property' rather than 'item'. But whenever possible, the two are to be considered interchangeable. It is in the same spirit that we use 'predicate' as a generic term for monadic and polyadic properties of any level of complexity -- and thus for complex combinations of items.

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To continue. We know that any expression naming an individual can be rewritten in the form of a definite description. This means that



it is technically possible to rid our discourse of any reference to individuals. Individual variables will remain of course, but these may be conveniently viewed, in this context, as notational devices used to tie predicate-terms together. In place of the standard interpretation of ' $Fx.Gx$ ', i.e., 'x is F and x is G', the same symbolism can be read 'F and G are together'.

This would leave one with a discourse containing terms for properties, relations, and complex combinations of these; signs indicating how these predicates -- i.e. items -- are tied together into groupings; and quantifiers. But what is to be quantified? The evident answer is: the only individuals within such a universe, i.e. the values of the reference-frames mentioned. For example, if the frame were that of time, ' $(\exists x)Fx$ ' would read 'At some specific instance(s) of time, F', and ' $(\exists x)(Fx.Gx)$ ' would read 'At some specific instances of time, F and G are grouped together'. In a parallel interpretation ' $(x)(Fx.Gx)$ ' becomes: 'At all instances of time, F and G are grouped together'.

Russell in his period of logical atomism has argued that there must be individuals in the universe, for one to have any knowledge by acquaintance. The solution I propose here, namely that there need not be any individuals -- aside from values in a reference frame -- turns the corner of his position. Reference to any other types of individuals becomes unnecessary. Indeed the minimum requirements for the successful use of such a language are meager enough: there must be data describable in terms of expressions for properties, etc. positioned in some frame of reference; and logical connectives and quantifiers must also be available to indicate whether or not the predicates mentioned occupy the positions

in the reference-frame.

The reader may feel that he is being led up the garden path into a very queer universe -- and all under the guise of a purportedly neutral inquiry into ontology. But I make no further claim for the value of the theory that I have outlined above than that it is useful as a logical explicans. Useful it is: if we can dispense with reference to individuals, other than instances on a reference-frame, we can state invariance exclusively in terms of predicates and instances. For, parallel to our earlier formulation, if some predicate is positioned at all instances of some reference-frame, it is invariant in respect to any change within it.

We then define predicate-invariance as follows. Where  $e$  is a reference-frame (or some portion of one):

$F$  is invariant in respect to all changes in  $e$  = DEF If some instance of  $e$  is  $F$ , then any instance of  $e$  is  $F$ .

For example, if we wish to say that mass,  $k$ , is invariant in respect to changes in time, we mean, according to the above: if mass equals  $k$  at some instance of time, mass equals  $k$  at any instance of time.

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#6. Now that this groundwork has been established, we can pause to look ahead. Our immediate task is to show that certain -- but not always the same -- properties or relations, etc. are invariantly associated with different individuals or units. Then, as in the previous section, we will reverse our viewpoint and show that such properties, etc. can be considered not as properties of individuals, but as unit-determining. This permits us

to state those conditions which a set of predicates -- or better yet items -- must satisfy to be considered as units. We also discuss further conditions which permit us to restrict membership in this class to those which are considered individuals within a particular scheme. Predicative-  
is is then shown to apply to these, and 'exist' to a proper subset. In this way we can then establish a schematic definition of 'exist'. We apply this to the sundry issues we have noted at the close of the preceding chapter, and then happily terminate our labors. As noted earlier we shall not develop the argument in any detail, but only sketch the course of a possible fuller development.

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#7. Let us now distinguish three broad categories of conceivable units: material, immaterial, and a hybrid of these which we shall call 'abstract' objects. By an 'immaterial object' we mean: a unit that has no properties of material objects'. By an 'abstract object' we mean: a unit that has at least one property of material and one of immaterial objects'.

Typical material objects, as we consider them, are atoms, molecules, pieces of wood, stones, mountains, planets, stars, galaxies. We also include within the same category of material entities, physical events, such as the explosion of Krakatua, and physical processes, such as radio-active decay, or mountain-building, or the transformation of snow to glacial ice.

Typical immaterial objects are numbers, classes, logical or mathematical systems, and (with some reservations) thoughts, goals, purposes, rules. Abstract objects, in our usage, combine features of both the above. Typical of these, a chair is a piece of wood constructed for

a particular purpose, and a spoken language is a system of rules applicable to a set of sounds. Since the specification of the immaterial and the abstract turns upon that of material entities, let us first consider these latter.

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#8. I have a massive, slate-coloured crystal of lead ore upon my desk. What permits me to consider it a unit? I can change its position upon my desk, the crystal remains the same. I can imagine it upon my desk yesterday, but even if it is displaced in time, I do not say the crystal is altered. Or again, my son might come into the room and hammer the crystal's edges, but unless it were mauled beyond recognition, I would still consider it to be substantially the same as before. Nor if a leaky battery dropped acid upon it, pitting its surface and changing its colour, would I cease to consider it the same crystal. And if I were to throw it up in the air, the sudden acceleration would not effect this judgment, either.

On the other hand, if it were to change from lead to zinc, I could not consider it to be the same crystal of lead ore. Or if it were to melt, or if it were pulverized, or if in some Pickwickian fashion it were to disappear while I was looking at it and a similar crystal were to materialize several days later, or appear at the other side of the room -- in all these latter cases I would be loathe to consider either the molten lead, or powder, or counterpart crystals the same unit as that which is now upon my desk.

That is to say, this crystal of lead is considered to be the same irrespective of any regular changes in the value of its spatial

and temporal co-ordinates, or of its physical appearance, hue, or motion. But any substantial change in its shape, chemical or physical state, or any discontinuity in the series of temporal and spatial positions which it occupies, effectively precludes the ascription of unicity to it. Let us call any property of this latter kind (whether monadic or polyadic) a 'unit' predicate. When F is a unit predicate of x, if at any instance x is not-F, then at this instance this entity can no longer be considered the same x. (E.g. the moment the crystal becomes pulverized, the resulting material no longer constitutes the initial crystal and the original crystal can no longer be considered to be present.)

The reader will recall that we use 'predicate' as a generic term for a property, relation, or any complex coupling of these. Given this generality we can say:

F is a unit predicate of x = DEF For all instances v, in some portion  
of a reference frame in which x  
occurs x is F at v.

A unit predicate of x is then an invariant predicate of x in respect to changes in this frame.

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To return to the lead crystal: we have noted that we consider this crystal, at any time in its history, as occupying some point or zone in space and time. Further, occupancy of these points is considered to be free of discontinuity. In this way, given sufficient precision, one can assign a unique and continuous track through some discrete region of space and time to this crystal -- and by extension to any representative material object. Let us call any such track, any such continuous zone

through time and space, a 'time and space line', or equivalently a 'space-time line'. This track, although continuous, need not be unbounded. The lead crystal, for instance, is not a tourist: [it] does not fill up all of space. We suppose, also, there was some time when there was no such crystal, and that there will be a time when it will cease to be. But within this portion of time and space, the crystal occupies a space-time line unique to it. Whether it be a crystal or the moon, having a track of this kind is a unit property of any material object.

But to further specify this unit, i.e., to distinguish it from its space and time lines, at least one additional unit predicate must also be assigned. We have already cited other unit predicates of the lead crystal: ~~to-be-lead~~, ~~to-be-crystalline~~, etc.

If we continue to consider this lead crystal a representative member of the class of material objects, the types of unit predicates assignable to it, will be applicable to any material object -- and if we mentally review these, this seems to be the case. As with the lead crystal any atom, or any molecule or piece of wood or stone or mountain, planet, star or galaxy will occupy successive positions on a space-time line unique to it. Similarly, any of the above will also possess some physical or chemical properties invariantly associated with it at any point upon the unit's space-time line: the mass of the atom will remain constant, the number of atoms in (or potentially in) the molecule will remain unchanged, the chemical composition of the wood and of the stone will also remain substantially unchanged, and so too will the distribution of non-gaseous elements within a planet. Each of these, together we suppose with other less obvious features, can be considered as unit predicates of

atoms, molecules, stones, etc., as the case may be.

Admittedly stars and galaxies present a problem for these appear on analysis, less in the guise of things than of events and processes: stars for instance age. And yet the life course of a star follows a definite pattern. So we can say even here that the star at every instant occupies one given stage in a series of transformations typical of it, just as a non-stop train, at every instance of its run, occupies a different position of the one journey. Events, if we provide for the uniqueness of their transformation, can be treated in a similar way. Thus if we countenance predicates of any level of complexity, one can succeed in assigning one or more unit predicates of this latter type to any material entity.

These predicates referred to above are either chemical or physical. Let us assume (for the sake of convenience in exposition) that the former are ultimately eliminable in terms of the latter, and all of these in turn can be expressed by means of 'mass', 'length', 'time', 'charge', etc., together with the appropriate logical (and mathematical) expressions. In this way any of these unit predicates can be ultimately described in terms of the signs of logic, mathematics, and the basic lexical elements of the language of physics.

Thus we can associate with any material object,  $x$ , at least two predicates: to have a unique space-time line, and to have an invariant predicate, expressible in the language of physics. Thus where  $x$  is any entity,  $ST$  any space-time line, and ' $\phi$ ' any predicate expression formulable in terms of 'length', 'mass', 'time', 'charge', etc., together with the notation of logic:

If  $x$  is a material object then

- i:  $x$  -- and  $x$  alone -- occupies all and only all the points upon one continuous, discrete, space-time line, ST; and
- ii: There is some  $\phi$ , such that  $x$  is  $\phi$  at all points of time upon ST.

The property of having such a ST or  $\phi$  is invariant in respect to all changes of the position of  $x$  in time upon ST. Thus both this and the having of a space-time line specified in ~~one~~<sup>i</sup> ~~unit~~<sup>are</sup> predicates of any material object, or event, or process typified above.

But when both these conditions are satisfied by some entity, do we not then consider this a unit and count it as one thing? Thus (with two reservations soon to be noted) i and ii state both necessary and sufficient conditions for the ascription of unicity to any material entity:  $x$  is a material object if and only if i and ii both hold.

Admittedly, many entities that display invariance among their properties are not customarily considered to be units. But all we wish to show is that if i and ii are satisfied by some  $x$ , this  $x$  may be considered to constitute a unit. Between this possibility and the actuality that it is so considered, there may of course be still other conditions to be satisfied. These concern, among others, the convenience, simplicity, usefulness, importance, etc. of selecting out the given entity for consideration as an actual unit within a particular conceptual scheme. Let us call these latter, criteria of 'evidentness', and abbreviate them 'CR'.

Further, if i, ii, and CR are to establish sufficient conditions, they must exclude all immaterial and abstract objects. Criterion ii ex-



cludes immaterial objects, for these can have no physically significant predicates. Neither i, ii, nor CR exclude abstract objects since these latter objects have both physical and immaterial predicates. The remedy is simple: we need merely specify that all predicates of  $x$ , if  $x$  is a material object, are like  $\phi$  expressible in the language of physics.

Thus,

(A<sub>1</sub>)  $x$  is a material object if and only if

- i (as above)
- ii (as above)
- iii no predicate of  $x$  is not a value of  $\phi$

Lastly,  $x$  is actually considered a material object within a particular conceptual scheme if (A<sub>1</sub>) is satisfied by  $x$ , and  $x$  also satisfies the criteria of evidentness in force within the scheme.

. . . . .

#9. Typical of abstract objects are chairs, written or spoken languages, physical spaces, thoughts (or propositions) thought, legal corporations, etc. Some temporal and/or spatial predicates must be assigned to each entity in this curious company. The chair is in the room now; we cannot consider the chair (as opposed to the concept of the chair) as any place but in time and space. Similarly we say that Gaelic, say, is spoken in the Hebrides; we cannot conceive of a spoken language (as opposed to its syntax) except as spoken someplace. Or we say the sun deforms the space about Venus and therefore light rays are bent; we cannot talk about a physical space except in reference to some material structure, such as that of the sun, and some measuring stick such as light waves or meter bars. Again we say that Aristarchus in 281 B.C. and

Copernicus in 1532 A.D. both had the same idea that the earth revolved around the sun, but we could not imagine this idea as thought, except as thought by concrete individuals present in particular places at specific times. Finally we say that the legal seat, say of the Esso Corporation, is in New Jersey, for even a corporative individual, however abstract, must have its habitation.

But although all these entities occur at points in time and/or in space, not all of these must occupy a continuous track. Chairs and physical spaces do, but these may be the exceptions. Ideas, for instance appear and disappear without respect to time and place. Consider Frege who "discovered" his definitions of number in Germany in the nineteenth century, when it is likely that the Indian logician, **Raghunatha Siromani** discovered this same definition in **the sixteenth century.** )

Or Gaelic, perhaps, may be spoken no place at three in the morning today. Strictly speaking, there is no spoken Gaelic at this time -- any more than there can be a self for Hume to refer to when its bearer is asleep. Abstract objects just do not have to fill out some continuous stretch of time-and-space in the manner of material objects. Corporations are positively flippant in this respect: their legal seat changes upon the instant the document stating this is signed. Thus although it is necessary that abstract objects occupy some position in some track or tracks in space and/or in time, this occupancy need not be continuous.

However at each instant an abstract entity occupies such a track some physically significant predicate must be invariantly associated with it. For instance, the structure of the chair must remain substantially the same. If the chair's structure is radically altered, it is no longer considered the same chair. (There is some conceptual slippage here: the

chair might still be said to be the same chair with its cushion gone or one leg missing, and perhaps -- in an acrobat's family -- with all but one leg gone; but take all the legs away, i.e. change its physical structure in this substantial way, and what remains is not said to be a chair any longer, but only the seat of what was once a chair.) Or again, if there is a physical space then a frame of reference can be established within it in terms, say, of meter sticks or rays of light. Were this impossible in principle, as for instance in a purely mathematical space one could not consider this physical space. And in general we find that if something is considered to be an abstract entity, of the kind we have instanced, this entity will occupy some point in time or in space or in both, and at each such point so occupied one physically significant predicate is invariantly ascribable to this entity.

(It is clear by now that we do not include the objects of pure mathematics, such as numbers, classes, etc., among abstract objects in our classification, but rather -- in this terminology -- as immaterial objects. 'Two' for instance may be the name of the class of all couples. But that which all couples have in common, as opposed to say all instances of an electric charge, can be described in terms of mathematics. Compare this with 'electric charge'. Any description of this latter must ultimately refer to the extra-mathematical, i.e., to a deflection on a standard gauge. Thus although certain properties of numbers and classes and mathematical entities in general also occur as properties of entities in time or in space or in both, neither numbers nor classes nor propositions -- as we consider them -- are in space nor in time. As noted earlier, by immaterial objects, such as these, we mean entities to which physical -- or

chemical or biological, etc. -- predicates are inapplicable. And as our examples show, it is only that which is in space and time, however fitfully, to which physical predicates can be applied. Or contrast in this respect a work of art with a number. A work of art, however immaterial its underlying thought or purpose may be, must at least be thought of or written or executed or played or painted by a concrete individual. Whether it be Dali, your wife, or a Medici, someone at some time and place must realize it. But a given number need never be mentioned nor constructed nor even thought of. And yet, from the point of view of classical mathematics, it may still be viewed as a bona fide number.)

We have noted that some physical predicates are unit predicates of abstract objects. But if this were the entire story, abstract entities would then just be degenerate types of material objects: ones with a spotty history in time and space. However this is not the case. A chair, for instance, not only has a physical structure but a chair also serves a purpose or has a function. Remove this latter and a chair becomes merely a material object like the piece of wood out of which it is fashioned. Similarly, physical space not only has its meter bars and physical points of reference but certain extra-physical properties too. For instance, the predicates of any two points within a physical space are isomorphic in some of their characteristics to the predicates of the representing points in a mathematical space (i.e. that of "points" established by ordered triplets of real numbers). Similarly any language, spoken or otherwise, has its set of rules. And rules, like numbers and purposes (in contradistinction to rules when used and numbers when applied and purposes when satisfied) are indescribable in the language of physics. We cannot ask:

What is the mass of your purpose, or of your thought, the velocity of your rules, the charge of your real numbers, the spin of your corporation?

And yet -- and this is the point -- at each time in which the chair is there as a chair in time and space, we do associate with the four-legged physical structure, the purpose which it serves; just as at each time in which a language is spoken, rules are employed; just as whenever there is a written charter, it is the presence of the legal conventions, operable at that time, which transform the scrawls and stamps upon the paper into a corporate entity, etc.

In general then, something is an abstract object only if at each instant that it occupies a position in some physically significant reference-frame, certain predicates are invariantly ascribable to this entity. As we have seen, at least one of these predicates is physical, and at least one other is inexpressible in this language, however supplemented this may be with terms of chemistry, biology, etc. Thus:

If  $x$  is an abstract <sup>object,</sup> then

- i:  $x$  occupies some point(s) in time and/or space;
- ii: there is some  $\Phi$  and some  $\Psi$ , such that  $x$  is  $\Phi$  and  $x$  is  $\Psi$  at each such instance,

where ' $\Phi$ ' takes on predicates as values expressible in the language of physics, etc., and ' $\Psi$ ' takes on as values predicates inexpressible in this language.

We now show that i and ii also establish a sufficient condition of unicity. If this is so, then it cannot be the case that i and ii are satisfied by some entity, and this entity at the same time is considered not to be an abstract object. By ii such an entity must be abstract: it contains predicates of both immaterial and material objects. But is it

possible for such an entity not to be counted as one? This does not seem to be the case. If something has a chair-like structure at some given stretch of time and space and serves the function of a chair, must we not consider it as one chair? Similarly if at some points in time and space a set of words are spoken according to rules, if these rules cover the phonemic, syntactical, and semantic uses of these words, does not the n-tuple of phonemes, words, and rules determine one spoken language, or sub-language, i.e. an abstract unit of this kind? Similarly -- given physical reference points, measuring sticks, and a given mathematical structure -- must we not consider the physical space so determined a unit as well? Or again can one deny unicity to a corporation when its charter is given and the rules governing this are in force?

Thus as in the preceding section, we can strengthen the above formulation:

(A<sub>2</sub>) x is an abstract object if and only if

- i (as above)
- ii (as above)

Our previous remarks concerning the applicability of criteria of evidentness apply also in this present case.

. . . .

#10. Propositions, numbers, classes, mathematical spaces, rules, conventions, thoughts, intentions, purposes, values, etc. are all in one way or another inexpressible within the language of physics, and as such immaterial in our classification. This negative feature provides a necessary condition for the (shall we say?) immateriality of these entities: x is an immaterial entity only if no predicate of x is expressible in the extra-logical and extra-mathematical vocabulary of the language of physics.

But **this** condition covers a vast assortment of entities. It is hard to see just what does contribute to the unicity of the objects concerned. The difficulty here is that in the preceding sections we have been able to establish unit predicates in terms of temporarily positioned properties. This tactic is now interdicted: immaterial objects as we conceive them, cannot be present in time or in space. (For we assume that if they were, some physical predicates would be ascribable to them. This by the above is impossible.)

If we reflect upon the procedure used in establishing the preceding schemata of unicity we see that in each case certain properties of a unit have been shown to be invariant in respect to changes of position in the reference-frames of time and space. The appropriate generalization suggests itself: that some predicate of  $x$  be invariant in respect to changes of position in some reference-frame, but not necessarily that of time and/or space. In the case of immaterial objects, the appropriate frame cannot be described in physical terms.

Let us test this generalization. What for instance provides a criterion of unicity for any statement,  $p$ ? We know that for any such  $p$ , there is a set of statements, aside from  $p$ , which entail and are entailed by  $p$ . Let us call this the 'set of logical equivalents of  $p$ '. We also know that logically equivalent propositions can be substituted, one for another, without altering the truth of the resulting proposition. Let us call any such a 'replacement' for  $p$ . Now let us consider all the statements, of dissimilar logical form, in which  $p$  appears, as forming in some way a reference-frame. (For instance all of these might be lexically ordered according to their Gödel numbers.) Now it is evident that  $p$ , at any position within this frame, has the following property: to be replaceable

by any member of its set of logical equivalents. Further no other statement has this property. For if two statements had the same set of logical equivalents (i.e. of all statements logically equivalent to them, with the exclusion of the statement itself) the two would be identical. Let this then be a unit predicate of any statement.

The unicity of the statement,  $p$ , in the above depends upon logical characteristics. But what about the content of extra-logical utterances, such as commands, threats, requests, promises, etc.? And here I am afraid, as in the case with most immaterial objects, we must leave the established tracks. For there is no widely accepted "logic" of commands, etc. But if the reader will grant that the term 'information' can be used significantly, it might nevertheless be possible to establish a unit predicate applicable to the contents of all types of utterances. For one characteristic of all such is to be informative. And each of these, whether it be expressed as 'Get out of here', or 'You best get out of here', or 'Please get out of here', etc., conveys information which is different from that in any other contextually non-synonymous utterance. (We assume the context specifies the speaker, hearer, and place; for otherwise we do not have an interpretable utterance, but a fragment of one.) Now, we can establish a reference-frame for the contents of utterances, similar to the above frame of statements. This would encompass all such contents -- with the exception of the content of the utterance in question,  $q$  -- with which this utterance can be significantly combined. And no matter what we combine with  $q$ , i.e., no matter what position  $q$  occupies within this frame, the information conveyed by  $q$  itself will remain unchanged. Let this then be a unit predicate of any utterance: to convey the same information irrespective of any change of position of  $q$  in respect to other utterances with which it is associated.

As for classes, classes are generally considered to be the same



without regard to any change in the order and frequency of their elements. For example the class  $\{a,b\}$ , is the same as  $\{b,a\}$  and  $\{a,a,b\}$  etc. Now assume that we can take these permutations of elements, order them in some way, and establish a reference-frame, which we may call the 'space' of the elements of the class. This space will be unique to each class, for if some elements were to form two identical spaces of this kind, the elements would have to be the same, and thus the classes would be identical. This then provides a unit-predicate for any class, X: if the elements of one position (say a,b) in a particular space form X, then X is formed by the elements in any position within this space (say b,a; a,a,b; etc.). Further, since numbers are particular types of classes, presumably the unicity of individual numbers and of other mathematical objects can be established along similar lines.

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Although the type of predicate-invariance established may be rather complex, our generalization seems to hold in all the above cases; statements, the content of utterances, general, classes, and (by extension) the mathematical objects which can be formed from these, all display two general characteristics. Where 'x' stands for any immaterial object of the above kind:

- i: no predicate of x is expressible in the extra-logical terms of the language of physics; and
- ii: there is some predicate,  $\phi$ , such that x is  $\phi$  for all values of x within some reference-frame.

The first condition establishes the immateriality of x: any entity satisfying i can be neither material nor abstract. The second condition provides for unicity: given the invariant association of some value of ' $\phi$ '

with  $x$ , one can conceive of  $x$  as a unit. Perhaps it is cavalier to assume the above two conditions apply equally well to any of the other immaterial entities, such as intentions, values, etc., which we have cited. We might suggest that intentions, too, might be ordered in the manner of statements: for each intention there may be a class of intentions which are compatible with, or can be satisfied at the same time; and presumably this class, too, is unique to each intention. And if some predicate-invariance might be established along these lines for intentions, we suppose values, purposes, etc. might also be placed within the same general scheme. (Similarly thoughts might be treated along the same line as propositions.) But we shall not pursue these matters further. Thus -- and subject to the above assumption:

(A<sub>3</sub>)  $x$  is an immaterial object if and only if  
 i and ii, above, are satisfied.

We note again the role of the criteria of evidentness, CR. (A<sub>3</sub>) applies to any conceivable immaterial unit; CR in turn determines the acceptability of  $x$  as a unit within a particular conceptual scheme.

¶11. Before proceeding, let us confess our omissions. The treatment in section 10 of immaterial objects is most brief. And in general, philosophically difficult subjects have been avoided throughout. What sort of object, for instance, is the self, or a sense-~~datum~~<sup>-datum</sup>, or a living being? What sort of objects are sub-atomic particles? And how is one to place sense-data, after-images, and the sensory content of experience within this scheme?

We might try to suggest that the treatment of other types of immaterial objects would proceed along the established lines, that the only problem, as Wittgenstein would say, is an "empirical" one; i.e. in

this case to discover the apposite reference-frames in terms of which invariance can be established. We might also say that questions such as: 'What is the self?' are misleading, and that these for present purposes should be reformulated. If for instance one were to ask instead: 'Given a particular philosophic position, what sort of object is the self considered to be?', we can then reply. For a materialist, such as Hobbes, the answer is clear: 'Material object'. See Hobbes 46, 15. For a dualist, such as Descartes, the answer is equally clear: 'Abstract object'. For in this latter case the essential predicate of the self, i.e. to-be-able-to-think, is not describable in the language of physics, while that of the associated body -- to have extension, i.e. length -- clearly is. For Hobbes, unicity of the living being might be established in terms of the invariant presence of "Vital Motion" at all times during the existence of the being. See Hobbes 6, 1. Or, for Descartes, one predicate invariantly associated with the living being is the capacity to think... Obviously, this is not to answer the question: 'What is the self?' But we cannot consider this a legitimate question, simpliciter.

We might also say that the question: 'What sort of object is a yellow after-image, or a sense-datum, or a red patch as seen? -- when reformulated in terms of a given philosophic system -- can then be answered, and similarly for the invariant predicates of these entities.

All of this we could say.

But this is not intended to cover our flanks. Rather we wish to show: we are aware how exposed they are -- and the line of defense one could establish, were this necessary.

. . . .

#12 The schemata  $(A_1) - (A_3)$  establish sets of conditions governing the ascription of unicity (respectively) to material, abstract, and immaterial objects. Any entity whatsoever which may be considered as a unit of some sort, satisfies one -- and only one -- of these sets of criteria. For these types, as established, collectively exhaust the universe and, singly, each is contained within the complement of the other.

Prominent in each schema of unicity is some formulation of predicate-invariance. If generalized, as in the preceding section, a criterion of predicate-invariance established along these lines is common to them all: any entity which one may consider as one is such that some predicate, invariant in respect to change in some reference-frame, is always associated with the entity in question.

It follows from the above propositions that unicity is ascribable to any x irrespective of its particular type, if and only if x satisfies such a generalized condition of predicate-invariance. Specifically, if we substitute in both  $(A_1)$  and  $(A_2)$  a generalized statement of predicate-invariance (such as that contained in ii of  $(A_3)$  above) then for all x, x is or x can be considered a unit, if and only if x satisfies such a generalized criterion of predicate-invariance. In other words the constant presence of some property, or relation, or -- better yet -- item upon a stretch in some reference-frame associated with an entity, provides both the necessary and sufficient condition which enables one to consider this entity as a unit. in this respect,

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Up to this point we have considered predicates to be predicates of a unit -- as if we were analyzing the unit into its conceptually

separable factors. And this procedure is certainly consonant with our customary attitudes: we do consider something as one inasmuch as it has certain properties. But we have also seen, apropos of unit properties, that we can describe the condition of predicate-invariance without referring to any customary individuals. For instance, the proposition:  $x$  is  $F$  at all points in a reference-frame,  $RF'$  can be rewritten:  $F$  occupies all points in  $RF'$ . In this latter case any reference to  $x$  is unnecessary.

Similarly we can consider a unit as built up out of predicates. Within this view predicates (i.e. items) are not to be considered as somehow attached to units, but on the contrary -- as unit-making: things do not have properties, but properties have things. Or better: things do not have properties, but (within this view) certain clusters of predicates are considered to be things. In this way, anything that we may consider as a unit may be defined as an instance of predicate-invariance. For as just noted: if  $x$  is (or can be considered as) a unit, then  $x$  satisfies a condition of predicate-invariance; and if it satisfies this condition,  $x$  is a unit or can be considered as such.

Thus (parallel to the reformulation of predicate-invariance at the end of section 5) we can now remove any mention of objects from the schemata that govern ascriptions of unicity to them. We need now refer only to predicates (or items), and positions in a reference-frame. For example, the resulting definition for 'material object' can be established thus:

- (A)  $x$  is (or can be considered) a material object = DEF  
 i: There is one continuous, discrete, unique space-time line,  $L$ ,

- ii: Some predicate,  $\phi$ , occupies all the positions on L, and no position immediately preceding or following L; and
- iii:  $\phi$ , however complex, is describable in the language of physics.

This present formulation follows that of the earlier schema of unicity for material objects,  $(A_1)$ , except that any reference to such an object, as such, has been eliminated from the definiens. (Also a second provision has been added to condition ii, to establish  $\phi$  as a unit property bounded by the stretch of L.) Definitions can also be established along similar lines for 'abstract' and 'immaterial' object. Before continuing, we note again the role of criteria of evidentness. These, unlike the preceding, select only those units, acceptable as such within a particular conceptual scheme. (We return to this in XIV-5.  $\nabla$ .)

To continue, within this view, whenever a given series of positions in a reference-frame is occupied by the same predicate (or better yet, occupied by the same cluster of items) one can -- as a matter of convenience -- say that an object is present. And such a procedure has indubitable merits: it simplifies discourse enormously, and is in this way roughly analogous to the device of introducing names to replace more complicated definite descriptions or ostensive manoeuvres. But, despite the practical convenience of having object-words, the point we wish to stress is that any use of 'object' as an ontological bed-rock item is unnecessary. The concept of objects is explicable. Any reference to customary individuals is theoretically eliminable.

This formulation, although counter-intuitive, has its own charm: all discourse is now reduced to terms for items, to combinations of

these, and to names for positions in a reference-frame. This procedure is also consonant with our knowledge of the perceptual processes. For whenever the results of past experience and learning are rendered useless, and environmental clues are obliterated, we do report our perceptions in terms of color-shapes and similar discernible items, not in the language of objects. (And this is even more marked when congenitally blind people are given sight.) These former it seems are closer to the virgin elements of our experience. And further this view avoids many difficulties concerning the relations of properties to objects, and the concomittant excursion into the notions of matter, predication, definition, etc. For what makes a thing a thing, in this view is our decision to recognize a predicate as invariant in some particular way. And what "makes" this predicate invariant need be nothing more occult than the fact of nature that it is -- or can be described as -- unchanging in this way, and that we are so constituted to note this.

One might find many reasons to object to this formulation. I consider only one: If 'thing' is nothing more than a simplified expression for a certain kind of predicate-invariance, might not two properties (like being-spherical, and made-of-iron) both occupy the same stretch of time and space as, for instance, with a meteorite? Why then should we not consider these properties to be two distinct things? 'Nothing at all,' I say, but convention: it is we who decide that no two concrete objects can occupy exactly the same stretch of space and time. It is part of our concept of material object to consider it so. (Were this otherwise, would it not be scandalous -- within the empiricist tradition -- that we could be certain beforehand that no two physical objects did occupy the exact

same stretch of time and space?) It so happens, I say, that our particular criteria of evidentness associate visual and stuff predicates, like being-round and being-made-of iron. One could imagine another scheme in which a combination of shape and smell was considered basic. And, on the other hand, we do countenance the presence of different objects upon the same space-time line -- provided they are of different types. For instance, some of my students are convinced that the soul is co-extensive and contemporaneous with the body, but -- despite the sharing of this time and space line -- distinct from it.

But if the above general formulation is consistent and workable in its details, there is no need to answer objections of this kind, here. For our present purpose is merely to show that one can employ the word 'unit', 'thing', 'object', without presupposing that the distinction between things and property, codified within our language, represents any ultimate ontological cleavage. If one accepts this theory we have advanced, one considers predicates (or items) as unit-making, and thus a unit becomes definable as an instance of predicate invariance.

If, on the other hand, one adheres to an alternative account, it is units and things and objects that are prior, and predicate-invariance is a property of these. Things have properties, and items do not have things. As far as a choice between these views is concerned, I cannot see why both may not be entertained and their relative weaknesses and strength assayed at various levels of discourse. Although these are prima facie rival formulations, I do not think there can be any fundamental opposition between them. For if one accepts the results of the past discussions, anything can be said to be a unit if and only if invariance of this kind holds. Thus whatever is said about specific objects and their



properties, if it is true or correct, can be reformulated in a logically equivalent statement concerning items and their positions in a reference-frame.

Granted this, we can now employ this theory of units to distinguish between the 'is' of predication and of existence.

. . . .

#13. We have noted in Chapter One that any appearance of predicative-is can be paraphrased in terms of 'have the property that ...'. Traditionally various general types of properties of an object, and relations between these properties have been singled out. i: the property may in some way or another be identical with that which constitutes the entity concerned. In this use, the copula is called the "is of identity". ii: the property in question may be normally associated with the entity, and in Aristotle's terms be a "proper" property ( *ἰδίον* ) of the object. iii: or the property may be "entailed" by the above. iv: or lastly, the property may be an occasional property, and said to be "accidental".

In all these cases, predicative-is can be eliminated by means of the paraphrase 'have the property that ...'. Nevertheless (or perhaps because of this), within the traditional conception the distinction thing/property is still maintained as fundamental. It is unnecessary to remark that this traditional picture of an object has been a source of peculiarly complex philosophic issues: predicative-is links expressions to form sentences, but how are the entities and predicates themselves linked in reality that are referred to and described in these sentences?

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This is not the place to resolve, or dissolve these questions

Rather what we shall do is to take the theory of units already developed and show that the four uses of the eliminable 'is' outlined above, can be explained in terms of it. We then show that the 'is' of existence, if significant, is distinguishable from these: existential-is cannot be directly explicated in terms of items and positions in a reference-frame. But, first, it will be convenient to define two new terms. By a 'predicate-stage' we mean any predicate or group of predicates at some instance in some reference-frame. And by 'predicate-cluster' we mean any predicate or group of predicates. In introducing these terms we wish to point out that the occupancy of a point in a reference-frame by some predicate in general does not preclude the occupancy of this same position by other predicates. Predicates, i.e., items, are in this way like waves -- many can pass through (or occupy) a given point at a given instance. Further, in using 'group' of predicates in the above formulation, the presence of any closer link between these is neither affirmed, nor denied: A and B are part of the same group of predicates whenever 'A occupies some position, x' 'B occupies some position, y' and ' $x = y$ ' are all true.

The above expressions introduce no new non-eliminable descriptive terms. Our extra-logical vocabulary is still restricted to 'item' -- or more loosely, 'predicate' -- and 'occupy a position (or stretch) in a reference-frame'. Admittedly we have given no more than an intuitive meaning to these key terms. Still their sense can be further specified in respect to material units. For 'item' here is a generic term for discernible features of our sensory experience and thus specific item-terms may be defined ostensively. And similarly for positions and stretched of physical space. For what are bench-marks and meter-sticks but con-

venient artifices to establish these? Lastly the key relation, of an item occupying a given position, is also open to some form of operational definition. And, we assume, this applies also to positions in time. Obviously ostensive techniques of this kind break down in respect to immaterial objects, or to the immaterial components of abstract objects, but any further discussion of these primitive terms is beyond the scope of this study.

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Given this vocabulary, we can now provide explications for the various eliminable uses of 'is' noted above. In each case we shall work with examples and merely indicate a possible fuller treatment.

i: The 'is' of identity as in 'The morning star is the evening star'; i.e., the predicate to-be-the-brightest-star-generally-visible-in-the-morning occurs in all the predicate stages in which to-be-the-first-star-generally-visible-at-night occurs and the converse. An identity of this kind is far from trivial: often only after a strenuous investigation of nature can one discover that these two predicates do in fact occupy the same space and time line or, more exactly one discovers that the unit determined by the predicate to-be-visible-in-the-heavens, together with a particular space-time line, is present in all space-time points occupied by the above two predicates, and that this unit is unique.

The 'is' of identity, as used above is informative. Within the following it is employed stipulatively; e.g: By 'Venus' I refer to the second closest planet to the sun'. In this case 'Venus' is said to be the name of the entity whose unit-predicate is to-be-the-second-closest-planet-to-the-sun.

ii: 'Is' may be used to express what amounts to be a relation of

logical equivalence between two statements. E.g. since among plane rectilinear figures: For all  $x$ ,  $x$  is a triangle' is true if and only if 'the sum of the interior angles of  $x$  is  $180^\circ$ ' is true, one can use 'is' and say that the sum of the interior angles of a triangle is  $180^\circ$ . By this one means that sum-equal-to- $180^\circ$  is a unit predicate of any triangle, and the converse. And in general "proper" properties of an entity are its unit predicates.

iii: Similarly 'is' may be used to express what is tantamount to a relation of implication between two statements. E.g. since 'There is some  $x$  that is a triangle' is true only if 'There is some  $x$  that can be drawn through three points' is true, 'is' can be employed in this way to say that a triangle is determined by three points. Or in other words, to-be-determined-by-three-points is a unit property of any triangle. (The converse is of course not true; these same three points also determine a circle.)

iv: Finally 'is' may be used to ascribe an "accidental" property to an entity, e.g. 'Venus is heavily clouded today'; i.e. a) the predicate in question occupies some of the predicate-stages of the unit, Venus, and b) that this is so, is not derivable from any description of its unit predicates.

Although the above analyses are paradoxically both brief and tedious, I trust the point is made: any appearance of eliminable 'is' serves in one way or another to relate items occupying a position to some instance of predicate-invariance.

But what is significant in the above, is that existential-is cannot be explicated along such lines. If 'Venus exists' means only that the unit, Venus (say) occupies some stretch in some reference-frame, such

an ascription of existence becomes indeed trivial -- for it follows from the unicity of Venus, that some such stretch is occupied in this way. We do not need 'exist' to tell us this. And further, if (as we assume) some type of predicate-invariance can be established in respect to any discernible feature of our experience -- even the immaterial and the imaginary -- unicity in some respect or another is ascribable to any entity. Thus, if it meant no more than the above, 'exist' would indeed be totally redundant. One might of course propose that 'Venus exists' means that to-exist is a unit predicate of Venus. But what do we gain by this? When we say that Venus is dark, we know what is meant. But with 'Venus exists', it is we who are in the dark.

## CHAPTER FOURTEEN

### 'Exist' - II

#1. 'Is', when eliminable, signifies that predicate-clusters are linked with other predicates also present in some or all positions of a reference-frame. Naturally enough, any such use of 'is' can be paraphrased in terms of: have the property that'. But as we have seen, existential-is and 'exist' are not eliminable in this manner. For example, removal of 'exist' from 'Material bodies exist' yields the fragmentary expression: Material bodies have the property that'. One possible completion, viz. '...they exist', only underlines the essential occurrence of 'exist'. But is another, namely: Material bodies have the property that they constitute the universe', any more significant? It will be the task of the following sections to convince the reader that this is so. Specifically we wish to show that 'exists' can be considered as a binary predicate-term that links entity-terms with 'universe' -- and can be defined in terms of the latter. Or (subject to considerable refinement), where 'U' stands for 'universe' and x is any unit:

$x \text{ exists} = \text{DEF } x \text{ is an element or constituent of } U \text{ or } x = U.$

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As a first step we look at several general arguments which lend credibility to the above. We then develop the above formulation in respect to three specific interpretations of 'universe'.

a) We have suggested that if x is an existent, the removal of x from the universe alters the universe, and the removal of all x's annihilates the universe. At the same time this is not necessarily the case in respect

to the removal of some properties. (The universe is changed if the Earth is removed; we would not consider the universe changed if, say, spring did not come this year.) Let us now compare the above state of affairs to that of elements in a class, or in a heap. Since two classes, or two physical heaps, are identical when they contain the same elements, the removal of any element alters such a class or heap, and the removal of all elements voids them. On the other hand, the removal or alteration of some occasional feature of an element does not necessarily change the class or heap in which it is contained. This parallel between existents, in respect to their removal from the universe, and elements or constituents in respect to their removal from a class or heap suggests that 'exists' may = 'element or constituent of a universe'. These relationships are also maintained if one equates 'non-element' with 'non-existent'.

b) If we assume the above to hold, the distinction between predicative and existential-is can now be explained. To say that a exists is to say that a is an element in a universe, and as such it is natural to infer that a has some properties; i.e. an existential use entails a predicative use. But the converse (in any universe in which there are non-elements) is not the case. For instance, numbers have various properties; still one might claim that they did not exist.

c) This also establishes a rationale for the dictum that existence is not an ordinary predicate. As noted above, the relation between these two ascriptions in respect to derivability is assymmetric. Further existence is certainly not an ordinary property, in this formulation, inasmuch as it is a relation, and one which holds only between an element and some 'universe'.

d) This explains, too, the curious reluctance one has to eliminate

'exist' from certain contexts. For, according to this assumption, 'exist' has yeomen's work to do: namely to single out an entity and to ascribe elementhood to it. When 'exist' is replaced by 'is', or even 'be', one is ready to slide to 'have the property that...'. And this, as we have pointed out, is another kettle of fish.

**'existent'**

e) The equating of ~~'exist'~~ and 'unit constituting a universe' is also consonant with one famous gloss of 'exist', namely Aristotle's dictum that to exist is to be a substance. Whatever else 'substance', i.e. 'ousia', may mean, it certainly carries the sense of that which is always the same and never changing. This, together with the Oxford Shorter English Dictionary second definition of substance as 'a separate or distinct thing' fits 'unit' like a glove.

f) One might object and say that 'existent' does not apply to members of all universes, but only to members of the universe. But this would be just another sense of 'exist'; i.e. to exist in whatever universe the speaker might denote as 'the universe'. Or one might claim that 'existent' applies only to that which is most real, or pre-eminent. This too is clearly another sense. We shall return to these in the sequel. But for now, let us proceed and give substance to our claim.

According to the above proposal, the key term in existence-statements is 'universe'. But this manoeuvre affords scant comfort. For not only is 'universe' a vague term but -- just as there is not one kind of number <sup>one can</sup> to reckon with -- also envisage more than one type of universe. Is the universe to be considered merely a physical heap of the material units it contains, and are each of these objects and events loose and separate? Or is the universe ordered in some way and is this order itself



a feature of the universe? In the case of a mere physical heap, 'universe' refers to a material unit constituted out of all other material units. In the second, where order is a distinguishable feature of the universe so considered, 'universe' refers to an ordered n-tuple of material units together with the ordering relations which obtain among them. And so, for all one's talk about the universe, the term, 'universe', is an ambiguous name. This is a curious but, I think, inescapable conclusion. For the units of a mere heap can be described in the language of physics without over-stepping the resources of this language, and so remain constituents of a material unit. But that an order holds among these units is not describable in the language of physics. (We can, for instance, employ logical notation together with terms such as 'mass', 'time', etc. to establish general laws applicable to any units contained within the universe as a physical heap. But if one wishes to say, as a realist does, that these law-statements reflect an order in the universe, this latter claim cannot be stated within the logical and extra-logical resources of the language of physics.) We cannot take the law-statement itself as an object and talk about it in this language. That an order holds is inescapably immaterial. We have admitted that the realist position represents a genuine option; we must therefore acknowledge that the universe may also be considered as an abstract object whose type-distinct components are the **constituents of the** /physical heap of the material object universe, together with the order which obtains among them.

But now if these two interpretations of 'universe' are to be countenanced, must we not also accept a third/<sup>In</sup>which 'universe' refers to an immaterial entity? Within the earlier formulations the universe

consists wholly or partly of a physical heap of material units. But if the universe were not a heap, etc., but the universal class whose elements were the units of the preceding formulations? Classes, according to our scheme are wholly immaterial. So if 'universe' is construed as referring to this class, it refers to an immaterial object.

One might look askance at the immateriality of classes. How can these be immaterial when some of their elements as in the present case are physical? How can such a class be totally indescribable in the language of physics? Of course, loosely speaking we do say that a class is specified when its elements are given. And with this same loose usage one might be tempted to say that the class is described when its elements are described. And so -- the objection might run -- if the elements of some class are describable in the language of physics, then the class is also describable in this way, and so not immaterial. However, let us consider the following analogy: the operation of squaring performed upon the imaginary number  $\sqrt{-1}$ , equals  $-1$ . Yet this does not mean that  $-1$ , like  $\sqrt{-1}$ , is an imaginary number. Similarly, any class -- strictly speaking -- is not specified by its elements; rather it is the operation of class formation, performed upon entities satisfying certain conditions, that determines a class. It is a fallacy of composition to expect that the properties of the class are like those of its elements. Thus if the universe is considered to be the class of all units, the universe so considered is totally and incorrigibly immaterial.

It is obvious that there can be only one entity named 'the universe'. But which? How can one provide preferential treatment for

one of these, whether that of the mere physical heap, or the heap plus laws, or the class containing all of these, or some other? Are integers for instance, most truly numbers, in contradistinction to all other types of numbers? Or is a certain kind of set, say that defined in terms of the Zermelo-Fraenkel theory, absolutely preferred to all others? Similarly, unless the unique correctness of one concept of Universe is incontrovertibly established, we are constrained to consider 'universe' an ambiguous name. It follows that 'exist', which is definable in terms of this latter, is equally ambiguous.

These matters will become clearer if we consider various possible definitions of 'exist'

. . . .

#2. We now develop three of the interpretations of 'universe' already noted, and then define corresponding uses of 'exist' in terms of these. Of course there may be numerous concepts of universe, but a study of these three will be sufficient for the present.

Within the first notion, the universe is conceived of as a mere heap or aggregate of material bodies. It is with this in mind (we suppose) that Hobbes writes:

(... the Universe, that is, the whole masse of all things that are) is Corporeall, that is to say, Body; and hath the dimensions of Magnitude, namely Length, Bredth, and Depth:... every part of the Universe, is Body; and that which is not Body, is no part of the Universe." Hobbes 46. 15.

Let us call this the notion of a 'universe as a material object'. Such a universe is conceived of as occupying a zone in space, and (we

suppose) some time-line as well. If our theory of units is applicable, there must also be at least one other predicate invariantly present at each instance of such a universe. The obvious candidates -- either the number, or relative position of its constituents -- are inadequate. For neither of these are temporally invariant, at least not so at the level of ordinary experience. However we can ascribe unicity to such a universe (or to any heap) inasmuch as the sum, say, of its matter remains unchanged through time. We talk for instance about a mass of clay, and in a similar way Hobbes can talk about the universe as a mass of things that are. Of course, matter is itself a vague notion and any use of the concept presupposes that we can consider existents as just so much stuff. One might accordingly wish to substitute a reference to mass, or mass-energy, etc. But we can consider one as apt as another here: our present purpose is to describe a notion of Universe, not to purify it.

Granted this, we can say of such a universe that it is viewed as occupying a zone in space, and (presumably) a unique time-line. Further, at all such instants, the sum of the matter (or the mass, etc.) of the universe is constant. Lastly, such a universe contains all other material objects as parts. This feature is also exclusive:

..The Universe is All, that which is no part of it, is  
Nothing" Hobbes, *ibid.*

But how can this universe be considered to be, as Webster says, "The whole body of things ... the totality of material entities"? (Italics mine.) How can we talk about the universe as a material object, as an aggregate, as gathered into a whole? To answer this, we now formulate a principle of heap formations, applicable to any unordered physical heap. First we consider material units as enumerated in some fashion, and

written thus:

1, 2, . . . . . n,

where each numeral symbolizes a particular unit. According to the above observation concerning the constancy of matter, etc., any such unit can be said to form a heap, H, providing the following condition is satisfied:

- i: Whatever the components of the heap may be (i.e. irrespective of their order, variety, and particular qualities) some sum related to these components remains constant upon a given space-and-time line.

This sum may, for instance, be the total matter or mass, or mass-energy etc. of the components, or perhaps even the total physical volume occupied at any time. The above condition which (we propose) is applicable to any heap, determines such an aggregate by reference to a collective property of its components. It will be convenient, for the sake of future developments, to introduce another formulation as well:

- i': The components of H are ordered in respect to their relative positions in space and time, and some sum related to these components remains constant upon a given space-and-time line.

The above governs the formation of an ordered heap.

We now introduce:

H( )

to stand for: 'The units [the names of which occur between the parentheses] form a heap, H<sup>#</sup>. For example, according to i, above, the expression 'H(1,2)' may be introduced any time the material objects, 1,2, satisfy i. Or generally, 'H(x,y)' may be introduced any time x and y are

material units and  $x$  and  $y$  together satisfy  $i$ ; and similarly for ' $H(x,y,z)$ ' etc. Further, let us call any  $x$  a 'constituent' of  $H$  whenever it is named as a unit of  $H$ .

The universe as a material object is, of course, a particular kind of heap. Let us call it ' $U_{MO}$ '. As noted above  $U_{MO}$  contains all other material units (except itself) as constituents, and  $U_{MO}$  contains none but material units. In other words, if  $H = U_{MO}$ :

- ii: the constituents of  $H$  are all the material units, other than  $U_{MO}$ , occupying a given instance of time, and are only material units.

We can now define 'universe as a material unit' thus:

$$U_{MO} = \text{DEF } H(1, 2, \dots, n),$$

where  $1, 2, \dots, n$  are each material units satisfying  $i$  and

ii, and the time-line,  $L$ , of  $U_{MO}$  is specified in  $i$ .

In this way ' $U_{MO}$ ' is defined basically in terms of an invariant predicate of any of its predicate-stages.

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But the point of this analysis is to define 'exist'. And this we despatch forthwith. For, according to our gloss:  $x$  exists in  $U_{MO} = \text{DEF } x$  is a constituent of  $U_{MO}$ . But what about the physical heap itself? To include this as an existent, we must modify the above to include  $x = U_{MO}$ . In such a case it becomes awkward to say, as above, that  $U_{MO}$  exists in  $U_{MO}$ . Rather we specify the meaning of 'exist' in regard to the universe  $U_{MO}$  thus:

$$x \text{ } U_{MO} \text{ exists} = \text{DEF } x \text{ is a constituent of } U_{MO} \text{ or } x = U_{MO}.$$

In words: ' $x$  exists' (in respect to the universe as a material object,

$U_{MO}$ ) means that  $x$  is this universe or a constituent of it.

We shall comment upon this definition later. But for the present let us note that 'x exists' (or 'x can be considered to exist') in this sense, can be unpacked into the following:

x is a unit: i.e. some discernible feature (item),

or more complex cluster of these, is

invariant in respect to changes of position

upon some reference-frame; and

x is a material unit: i.e. this reference-frame, in

particular, is that of time and space, some

unique stretch of which is occupied by this

item or items; and these latter are fully

describable within the logical and extra-

logical resources of the language of

physics; and lastly

x is a constituent of  $U_{MO}$ : i.e. each predicate-stage

in time, occupied by  $x$ , is such that the

sum of the matter, or mass, etc. of all

material units occurring within this stage

is constant.

This, we propose, is at least logically equivalent to whatever we do mean when we say that  $x$  exists as a material object. Although one might demur in respect to the final provision concerning the sum-of-matter, I think, this would only be in terms of the details of the formulation: some other, perhaps more complex predicate, might be proposed as more fitting. Let us note, too, that according to this formulation, to say that some individual exists in the above sense, is certainly informative.

#3. The O.E.D. renders the first (current) sense of 'universe' thus:

The whole of created or existing things regarded collectively; all things (including the earth, the heavens and all the phenomena of space) considered as constituting a systematic whole, especially as created or existing by Divine power."

We assume Divine power is not describable in the language of physics. But then the universe, within this conception, displays at least one immaterial predicate: made-by-Divinity. Such a universe must then be called an abstract object in our terminology.

But perhaps this reference to Divine agency may be viewed as a *deus ex machina*, conveniently introduced to substantiate our division of units into material, abstract, and immaterial. However, one can also reach



the concept of the universe-as-an-abstract object along other lines. To do this, let us distinguish between two senses of 'description'. Within the first, which we shall call the 'correspondence' sense, a statement, 'S', concerning some state of affairs, S, can be said to provide a correct description when all entities named in 'S' occur in S, and all the predicates ascribed to these in 'S' are instanced in this way in S. Within another sense, 'S' can be said to provide a correct description of S when some predicates of the entities named in 'S' occur in this way in S. We shall call this weaker form the 'representation' sense of 'description'.

For instance Eudoxus formulated a theory in which all celestial motion was explained in terms of the respective movements of a nest of spheres centered about the earth. Aristotle, in "De Caelo" for instance, adopts this theory of homocentric spheres; and for Aristotle, according to a standard account, "the spheres are physically existing parts of a vast machinery by which the celestial bodies are kept in motion..." Dreyer p. 112. This is the sense of description as correspondence. There are spheres in the theory with particular motions, so too -- if the ~~descriptions~~ <sup>there are</sup> is correct -- /spheres in the heavens with similar motions. For Eudoxus, according to the same account, "it seems probable that he only regarded these spheres as [no more than] geometrical constructions suitable for computing the apparent paths of the planets" ibid p. 91. In this case the description is considered correct provided that some of the features of the theoretical elements represent certain features of the phenomena.

Now let us consider the material universe as a systematic whole,

in which each constituent unit is describable in the language of physics. Since this language also contains the expressions of logic and mathematics, general law statements (e.g. those of classical physics) are also expressible in this language. But these apply not to units in a mere heap but to components ordered in respect to their location in space (and time).

Let

$$H \langle 1, 2, \dots, n \rangle$$

be such an ordered heap.  $H \langle 1, 2, \dots, n \rangle$  satisfies condition I' above: the elements of H are ordered in respect to their position in time and space.

Since position is a defining characteristic of the universe we are now considering, this universe in contradistinction to  $U_{MO}$  has this predicate: given the respective positions of all its units at some predicate-stage of this universe, it is theoretically possible to determine the corresponding positions in any other of its predicate-stages. The laws of physics can in this way be considered operators which take the values of any such predicate-stage as operands and transform them into the values of a succeeding stage. These laws are applicable to all (macro) physical objects and in this way can be said to determine the systematic unity of the (physical) universe.

But do these laws establish a description by correspondence or by representation? If it is the latter, these laws need provide merely an intellectual construction. The universe in which they hold is distinguishable from  $U_{MO}$  only inasmuch as it is an ordered natural heap. But -- if one wishes to assert, as a realist does, that these laws provide

a correct description by correspondence? Then the order they describe is a feature of the universe. Yet that it is a feature is not describable in the language of physics. For to assert this is to talk about a new set of entities: not material objects but laws, or the well-determined order they describe. Thus to specify such a universe one cannot merely refer to a heap, even an ordered heap. One must also refer to the laws, or the order they describe, as constituting-objects -- albeit curious objects -- of this universe. Since these latter entities are indescribable in the language of physics, the universe if it is considered as a systematically ordered whole in this sense, is then an abstract object. Or, to express this again in other words: we can take advantage of the presence of order among the elements of a physical heap in describing them, without altering the language in which we talk about the whole. But if we consider this order as a constituting element of the whole, we then countenance the presence of a feature -- order -- indescribable in the language of physics.

This of course, is not a novel observation. It is in this spirit, I think, that Heraclitus writes:

Wisdom is one thing. It is to know the thought by which all things are steered through all things" Burnet, p. 134.

(19); also (KR) 230, note.

If one wishes to include this order as an element of the universe one must also modify the second criterion of the preceding section. For this universe as an abstract object, let us call it ' $U_{AO}$ ', contains in this way more than material objects. Thus if  $H = U_{AO}$ , and  $D$  is the well-determined order that obtains:

ii: The constituents of  $H$  are all the material objects

occupying a given instance of time, together with  $\mathbf{0}$ , and anything which is neither of these is not a constituent of H.

This latter clause excludes all other non-material objects from H. The definition of the universe as an abstract object, in this sense, follows:

$U_{A0} = \text{DEF } H \langle \mathbf{0}; 1, 2, \dots, n \rangle$  where  
 $1, 2, \dots, n$  are each material units satisfying  
 i' of section 2, and ii above; and  $\mathbf{0}$  obtains,  
 or is applicable to each instance of H.

In this way  $U_{A0}$  is defined in terms of a physical and an immaterial predicate, each present at any instance of  $U_{A0}$ . In contradistinction to  $U_{M0}$ ,  $U_{A0}$  is a spatially ordered heap of material units together with the order determining their change in position.

Parallel to the earlier formulation, we can say that x exists, in respect to this universe as an abstract object whenever  $x = U_{A0}$  or x is a constituent of  $U_{A0}$ :

$x \langle U_{A0} \rangle \text{ exists} = \text{DEF } (x = U_{A0} \text{ or } x \text{ is a constituent of } U_{A0})$

Thus whether the universe be considered the work of a divine architect, or of a divine logos, or as merely displaying an order independent of the observer, the sense of 'existence' within such a universe can be established in general as above.

The present definition of 'exist' can also be unpacked along lines similar to the preceding one, provided that mention is made of x as part of an ordered heap. But let us stress that the order which obtains among the material constituents of  $U_{A0}$  is also said to exist, as does

$U_{AO}$ , and thus all existents in this sense of 'exist', are not exclusively material. With some possible scruples (concerning the existence of  $U_{MO}$  itself, inasmuch as it is an aggregate of individuals) the sense of 'exist', formulated in the preceding section, would be accepted by a nominalist, for instance Goodman. But the present sense would be proscribed:  $\emptyset$  is a property common to all individual constituents of  $U_{AO}$ , and if these exist -- such a nominalist would maintain --  $\emptyset$  cannot. See Goodman (3)2. By this token, 'exist' as defined in this section, displays those features, a realist would demand.

\* 4. Mates, in a summary discussion of the history of logic, makes the following suggestion:

Abelard devoted much attention to the verb 'is', arguing that the content of any categorical sentence can be expressed by a sentence of the form 'A is B' ( A est B ). Even 'Socrates exists' ( Socrates est ) can be represented by 'Socrates is an existent thing' ( Socrates est ens ). Perhaps this points the way to the possibility of reducing the number of predicates in our language to one -- the ' $\epsilon$ ' of set theory -- and of representing existence as membership in the universal set" Mates, p. 209.

Although I am not certain how much of the "pointing" is in the mind of the commentator, let us explore this suggestion. The universal class, as any class within our terminology, is an immaterial object. If our gloss of 'exist' as 'constituent of the universe' is maintained, 'universe' in this sense names an immaterial object; namely,  $V$ , the universal class. This class, within those formulations of set theory

in which it appears, contains all or nearly all entities as members. Excluded entities are victims of devices introduced to interdict the formation of self-contradictory expressions. Thus, if the universe is considered to be the universal class any unit of any type -- providing it can be specified in terms of a self-consistent description -- may be considered a constituent. In this sense (with the above noted exception) anything can be said to exist.

Units, within our formulation are defined as instances of predicate-invariance, but membership in V is restricted to those units whose properties (loosely speaking) are mutually compatible. Let us then reformulate our notion of unit to exclude impossible units. Let these be linguistic or extra-linguistic. If they are the former, they cannot be used consistently **to make statements**. If they are the latter, definite descriptions of them cannot be used consistently. For instance, let 'A is the one and only round-square' be such an impossible linguistic object. Introduction of this as a premise makes any premise-set containing this inconsistent. Or let A be the one and only round-square. In this case the definite description of A, as above, cannot be used consistently. These features of impossible objects are invariant with respect to change from one (interpreted) language to another. So any entity that satisfies the above condition can be considered both as a unit and impossible.

We shall now construe 'unit', unless otherwise specified, as 'possible unit'. This does not mean that, say, the second natural satellite of the Earth is a possible material unit. For before it can be said to be possible in this formulation, it must first be a unit: in this case a material unit occupying a particular stretch in time-and-space. And

unless the heavens have changed overnight, this is not the case. On the other hand, the concept of the second moon -- providing its description is self-consistent -- is a possible (immaterial) unit. In this way the chimera is not a possible material unit, the concept of the chimera is a possible immaterial unit, and the idea of the chimera (as entertained by the author of the tale through a stretch of time) is a possible abstract unit.

To proceed, let us call the universe as an immaterial object, 'U<sub>10</sub>'. Given the above convention, concerning units as possible units, we can define U<sub>10</sub> accordingly:

$$U_{10} = \text{DEF } V$$

Where V is the class of all units. To exist in this sense is to be an element in V, or to be V. Thus:

$$x \langle U_{10} \rangle \text{ exists} = \text{DEF } (x \in V \text{ or } x = V)$$

- -

Within this formulation any unit -- provided it or its description is consistent as above -- exists. In the most general mathematical sense of 'exist', any mathematical object (say a number, n, which is F) can be said to exist, provided that the denial of 'n is F' is impossible. This present formulation of 'exist', in respect to the universe as an immaterial object, is consonant with mathematical practise. And this is fitting: for I suppose the objects of classical mathematics (in any but a formalist approach) provide the paradigm examples of immaterial units. But a difference remains: the universe of discourse of (pure) mathematics is homogenous: no mathematical object is describable even in part in terms of the extra-logical and extra-mathematical vocabulary of the language of physics. This is not the case with the elements of the

universe as an immaterial object: although classes are not describable in this way, the Moon is. 'To exist', as an element in the universe as an immaterial object, is ascribable to any entity that satisfies some schema of unicity of a given type and is a possible unit. 'Exist' in this sense, applies without distinction, to material, abstract, and immaterial units.

#5. In Section I, we introduced a gloss of 'exist' that we can now rephrase as: existent = a unit-element or unit-constituent of the universe, or the universe itself'. We then investigated different interpretations of 'universe' and showed that definite -- but different -- senses of 'exist' can be defined in respect to each such interpretation.

Since we singled out clear and distinct interpretations, it might seem that 'exist', in this way, has just a few uses. But this illusion is soon dissipated. For alternative notions of Universe are close at hand: one might consider the universe a material unit whose constituents were ordered in space, and not a mere heap; or an abstract unit also peopled with thinking units; or the class of all its sub-classes, and as such larger than V; etc. But these are trifling additions -- isolated points upon a full spectrum of interpretations. Since we have shown that 'exist' is definable in terms of 'universe', it follows that 'exist' too has its meaning explosion. It will be the task of this section to establish this conclusion.

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Up till now in our discussion of the different interpretations of 'universe', we have referred in general to stretches of time and space and to invariant predicates, etc. It will be our concern in the following to show how different -- and extremely different -- concepts of Universe,



even of the same type, take on their characteristic structure when particular values are assigned. The situation we wish to point out is similar to that of certain equations in analytic geometry: if one alters the values of the variables, the whole shape of the resulting curve is changed. Or, it is like someone's first efforts at baking cakes: small variations in the ingredients or the temperature of the oven can produce dramatic and often devastating variety in the final product. But unlike the case of baking --we shall argue --there is no uniquely correct interpretation of 'universe'.

We first consider  $U_{Mo}$ : a universe in which any  $x$  that satisfies the criteria for material units is considered to be a constituent, and no further criteria concerning the evidentness, the simplicity, nor the duration of predicate-invariance are imposed. Within this interpretation, a given flash of lightning, or a clap of thunder, or some particular glint of red, or a micro-second long stream of electrons, or a configuration of items occupying the same general area for a brief instant, or an empty shell, or the corner of this wall, or the body of red in the universe, would all be considered as constituents on a par with the Dog Star, the moon, the lead crystal on my desk, and the totality of matter. For each of these has at least one predicate invariant through some unique stretch of time and space.

There would be no theoretical deformation to the structure of such a universe so conceived for it would have no structure. Nor would there be any inter-relationships between elements: the only criterion for membership is to be a material unit in any position whatsoever. A heap such as this would comprise material units of all sizes, shapes,

types, properties, and complexities. Let us term it 'the helter-skelter universe of material units'.

One can also consider a helter-skelter universe of immaterial units: one in which any immaterial unit, irrespective of its possibility or any other limiting feature, is an element. Then, provided analogous entities were instanced in some stretch of time and space, one could include these latter in a corresponding universe of abstract objects, equally helter-skelter. If one could then consider an aggregate of all these units -- one containing material units as constituents, immaterial units as elements, etc. -- this motley collection would provide the basic helter-skelter out of which all others might be formed. Let us call this 'HS'. For instance, HS contains all constituents of  $U$ , at least all elements, of  $V$ , and all abstract units.

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To a certain extent our everyday and unanalysed notion of "the universe" contains many features of the above. We talk about stones, bridges, electron-showers, colors, quasars, moonbeams; and perhaps even thoughts: all considered, as it were, on the same level of being part of the universe. However, to an important extent our familiar universe is not viewed as helter-skelter. For instance we do impose some criteria of evidentness in judging the claims of putative units. The lead crystal on my desk is admitted as a physical object; but the pile of chalk powder also on my desk is considered to be at best a tenuous sort of object; and the heap of crystal, chalk, and the spider web in the garage is certainly not countenanced as such, in the customary sense. Or again, the sun and the stars -- however incandescent -- are considered to be physical objects, while the moonlight now upon my desk is not. Further, we impose restrictions

upon the duration of time and the stretch of space which units must occupy, if they are to be considered elements within our customary universe. E.g. were an immense body of sand to appear only once in the sea, we would be hesitant about calling it an island, but let it remain for years and it finds a place on the map. Thus depending upon the criteria of evidentness and duration of invariance imposed, certain types of material units are considered as prominently constituents of this universe, and others excluded. We shall call any universe, in which such additional criteria hold, a universe of 'prominent material objects'. In such a universe:

(CR-1) All material objects,  $x$ , are members of this universe

provided that:

i:  $x$  satisfies specific criteria of evidentness

and/or

ii:  $x$  occupies a time-space line of a particular length.

For instance:

a) Let  $i$  be ' $x$  can be identified by means of an x-ray microscope'. Accordingly, anything larger than a small atom and smaller than a group of molecules is an object in this universe. On the other hand, neither electrons, nor stones, nor stars can be considered such.

b) Let  $i$  be ' $x$  can be perceived by normal unaided vision and by no other sense'. This universe is constituted exclusively of color-shapes and recurrent patterns of these: the silver configuration (of sunlight on running water), the green blob (of deciduous trees on the hillside), the yellow orb (of the sun) are each typical elements. All other units except ones such as these are excluded. But if  $ii$  is modified so that the stretch of

time is ten months, even the green blob (of deciduous trees) becomes excluded from elementhood.

c) Or let  $i$  be 'x can be perceived by normal vision, and at the same time x resists touch and probing'. In its rough and ready way this criterion brings into prominence many of the familiar objects of our customary universe. An icicle, a stone, a rose, a mountain, and -- by extension -- the moon, are each exemplars satisfying these provisions. But if this aggregate is to contain only the relatively enduring objects of our customary universe, values of  $i$  must also be further specified. (Too short a time-line permits the inclusion, say, of the material component of bumper-to-bumper car jams as existents. If, on the other hand, extremely long time-lines obtain, neither an icicle, stone, rose, nor mountain would be considered as a constituent.)

d) Or let  $i$  be 'x is invariant with respect to all changes in time'. Under this strong criterion perhaps some molecules, atoms, and stable subatomic particles are elements within this universe. But, for the sake of illustration, let us assume that even these units change in time. (This is, in fact, one current cosmological hypothesis.) Accordingly none of these are elements. If, however, we do assume that the mass of the universe is constant, and that this alone is invariant in respect to all changes in time, this totality of mass constitutes the one unchanging unit. In many ways such a universe would be like the Parmenidean One -- and as distinct and different from the world of customary objects as this latter is distinct and different from the world depicted by an x-ray microscope.

Let the above types of universes of prominent material objects

stand as examples. The objects that become conspicuous within any particular interpretation of 'universe' along these lines are those that satisfy definite conditions of evidentness and of invariance introduced within the argument places of the schema, CR-1, governing this. As we have seen there are many such possible conditions and each determines an interpretation of 'universe' with different characteristics. In fact, given the extraordinary variety of means we possess for obtaining information in any given context, there seems to be no effective limitation to the number and variety of conditions that may be imposed. Thus there is not one concept of the universe of prominent objects, but a class of such.

These same remarks also apply to other concepts of prominent object universes. For instance (considering immaterial units now) criteria of evidentness, tailored along more general lines, might exclude from membership any impossible units; whereas other criteria might exclude only some, or only immaterial units not constructed in a finite number of operations, or only those for which no corresponding unit occurs in a universe of prominent abstract objects, etc. And similarly other criteria might be applied to determine membership in this latter type of universe. Thus in general the presence of particular types of units within each universe -- as well as the distinctive characteristics of the given universe -- depends upon the specific criteria of evidentness and of predicate-invariance which hold within it.

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Further the range of values of 'universe' is even more extensive than the above discussion of helter-skelter and prominent object universes might suggest. For it is also possible to introduce dependence relations

of some kind within any type of universe. There are limitations as to kind: all elements of a helter-skelter universe are independent, and accordingly no other relations, either of pre-eminence, or equi-eminence, or exclusion can hold within them. On the other hand, within a prominent object universe, all of these can be established.

Thus we can distinguish different interpretations of 'universe' in respect to the basic types of objects they contain:  $U_{M0}$ ,  $U_{A0}$ ,  $U_{I0}$ . Each of these, singly or in combination can be further distinguished in respect to their inclusion or exclusion of elements: on the one hand the various types of helter-skelter universes, and the other the universes of prominent objects. Further distinctions can also be made among the elements of each inasmuch as they satisfy or fail to satisfy the different qualifying conditions in terms of which ontologically ordering dependence and excluding relations are established. So 'universe' is in this way multiply ambiguous.

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#6. I think I hear an objector and the tenor of his argument is that the criteria i and ii of our customary universe, are not just one other pair of conditions but are the correct ones. 'They correspond' he says 'to what is the case. The others are merely fanciful'. That they correspond in some fashion to what is the case, we cannot doubt. If the earth were not solid, but were full of holes like a dry meringue, and if we still insisted that it was solid, we would all end up in these holes, like mice caught in a wine bottle. Since we do not, our conviction that the earth is solid is in some rough fashion vindicated. Similarly our belief that the universe is composed of physical objects with their customary properties must also in some way be consonant with what we refer to vaguely as 'the

case'. But if a creature were to have a concept of Universe in which the prominent objects were not thing-shapes, but, say, smell-shapes -- as we believe is the case with bees -- and were to manage with this notion of a universe, must not the universe of smell-shapes also be consonant with "the case"? Or if one were given a sonar sounding device, as some sharks and whales have, would not the structures and units which he found as prominent also be consonant in their way with what was the case? The objector might reply: The structure of other imaginable universes depends upon the structure of the one we know. Colors and smells and reflecting surfaces are the colors, smells, and surfaces of the objects in our world. If the world were not structured as it is, i.e. in terms of our familiar material objects, your bees could never find their smell-shaped entities nor the shark its prey.' This argument is self-defeating. Presumably the structure of the world we know is based in turn upon the structure of the atoms and molecules which compose it (or something like them), for how else can we explain what we photograph in an x-ray or an electron microscope? Indeed, a creature fitted with x-ray vision might retort: O hypermetropic man, you talk of stones and walls without which the bee could never find his devious way. But these stones and walls, to which you ascribe objectivity, par excellence, what are they but devious configurations of that which only I can see directly, and which is the case?'

Let us allow this objection to drop for the moment. The partisans of any interpretation of 'universe' can doubtlessly find reasons to show that theirs possesses a privileged status -- one need merely choose the appropriate qualifying condition. But we have laboured to show that this choice itself is partisan. It is not that the choice of universes depends

upon what is the case, but 'what is the case' becomes meaningful only in terms of a particular interpretation of 'universe'.

This may seem to introduce an untoward proliferation of universes. But how else can one talk of specific entities as elements within a universe, or of specific relations which hold between them without either contradicting oneself or remaining on a level of schematic generality? There are prima facie alternatives. One might for instance attempt to consider the basic helter-skelter aggregate, HS, as the universe. In this way anything, at least any entity to which unicity is ascribable, could be said to exist. But we have argued earlier that in view of the plethora of units, dependence relations of some sort must also be established. For HS is as close to chaos as one can imagine. But the moment one establishes such an order, since various kinds of dependence are possible, in effect one generates distinct sub-universes, within HS, each with its own criteria of ontological pre-eminence and equi-eminence, etc. And this is no solution to the problem of the proliferating universes. For although 'exist', since it now applies to everything, becomes redundant, ontological questions now reappear in the guise of: What is pre-eminent? And, as we have argued, this question is as unanswerable as: What is the correct interpretation of 'universe'? (For to answer either, one presupposes that there is an incontrovertible set of values in terms of which either a theory of the universe, or of chains of dependence is to be adjudged. We have argued that this presupposition is unsatisfiable.) Thus the choice of the correct interpretation, or of the fitting criteria is not determined by "the universe" as we encounter it -- all that this encounter can achieve is to interdict certain interpretations as impossible or exclude criteria as unrealizable. But this field of manoeuvre still leaves an abundant variety of formulations open.



Nor could one follow another course and consider some one restricting prominent object universe as the universe. For as we have instanced, alternative sets of criteria are again available and any attempt to justify one, categorically, presupposes the same absolute consensus concerning the values of theory-appraisal, which we find chimerical. And further a status must still be assigned to all the constituents of the basic helter-skelter universe to which elementhood is denied within the selected universe of prominent objects. And, even if a successful reductive account can be provided to justify this denial of elementhood, or to assign a role of ontological dependence, the "success" of any such theory of the universe is inextricably conditional.

Thus one way or another one is caught within an apparently vicious cycle. Guided by the expression "the universe" one must accept either a) the most comprehensive interpretation, namely the universe as totally helter-skelter, or b) some restricting one in which certain units are singled out as prominent, or pre-eminent and others as non-constituents, or subalterns. But within a), the universe, HS, is so lacking in order, one is forced to consider it as nevertheless containing sub-universes, and the problem then is to justify their appearance. For, if they are all parts of HS, no order can hold between them, and for all purposes they are then independent universes. If, on the other hand, one opts for b), since no set of restricting criteria claims any absolute sanction, different prominent object universes emerge for consideration. The problem remains: how to explain the universe as many universes?

#7. If there is no way to escape from this proliferation of possible concepts of the universe, 'the universe' is a systematically misleading

expression. As used simpliciter, it does not name one particular universe, whether HS or V or any other. Rather it is an incomplete description like 'the descendant of Adam', which -- despite its form -- refers at best ambiguously to many individuals. Admittedly 'the descendant of Adam', if we disregard 'the', has some sense, namely: any human except for Adam and his mate'. Similarly if we disregard 'the', 'universe' means: any all-inclusive heap or class of entities provided that these satisfy some criteria of unicity, evidentness, predicate-invariance, etc.' But just as there are far too many humans, as we have seen there are far too many concepts of Universe. 'The universe', simpliciter, is nonsense.

From this it follows, if -- victim of the same delusion -- one says 'b exists', or 'b is an existent', and means by this that b is a constituent or a member of the universe, he is generally talking nonsense. The one exception to this is trivial. If by some tacit convention we consider the basic helter-skelter universe as the universe (inasmuch as it contains all elements and constituents of all others) then it is meaningful to say that b exists, i.e. 'b is an element or constituent of HS'. Meaningful, yes: but totally redundant. For to say that b exists in HS says only that b is a unit in HS. But all units are in HS; so 'b exists' in this way says only that b is a unit. However if b can be named (as presumably it is in 'b exists') must it not be a unit to start with? Thus to say that b exists in this way is to say that the unit, b, is a unit! So any statement of the form 'x exists', simpliciter, is either nonsense or totally redundant.

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If, on the other hand, we see through the expression 'the universe'.

we can then establish definite senses of '(a) universe' -- specifically, each set of particular values (established within the criteria of unicity, evidentness, and predicate-invariance, etc.) determines a corresponding interpretation of the term, and these do have definite and non-redundant senses.

So, despite its form, 'the universe', in any appearance simpliciter, is not a definite description, nor does it name. On the contrary 'universe' is like a variable. 'The universe' becomes a name, or purports to name, only in the context of a specific interpretation.

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We have noted the extreme variety of such possible interpretations. We have also shown that 'x exists' is definable in terms of particular interpretations. If we generalize on the basis of this, all non-eliminable uses of 'x exists' can be defined as follows:

$$\begin{aligned} x \langle U \rangle \text{ exists} = \text{DEF } & x \text{ is a constituent of } U \\ & \text{or } x \text{ is an element of } U \\ & \text{or } x = U, \end{aligned}$$

where 'U' is a variable whose values are particular universes. 'Exist', we propose is the sign of the relation -- existence -- which holds between an entity and a specific universe of which the entity is either a constituent, or an element, or the universe itself. There are then as many non-redundant meanings of 'exist' as there are permissible interpretation of 'universe'.

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#8. 'There is of course another criticism which can be made,' our earlier objector remarks. 'You have argued in terms of concepts of Universe, and shown we cannot justify an absolute preference for any of these. So

'exist', as you say, behaves like a variable and it becomes definite only when a particular universe is specified. And since there are many interpretations of 'universe', there are many meanings of 'exist'. This is all very neat. However we are not concerned with the choice of concepts, but with what is "out there", itself. Whether this is our customary universe or not, whether it is what we see, hear, and feel and touch and know about, or whether it is the cause of that which we sense and know of, or something else, this does not concern us. But whatever-it-is, there is something which for want of a better term, we may call 'the case'. It is the universe which a creature with complete knowledge, and free of any theoretical bias, would describe. And we presume it is unique. Now since anything which occurs within it can be said to exist (and any entity that never occurs within it, not to exist), in this use 'exist' is definite, and needs no further specification.'

Unless all is illusion, certainly there is something. I even grant for the moment that some all perfect knower can describe it. But I am not interested in such an extra-human use of 'exist': when any man employs the term 'the case', or talks about the 'out there', I am afraid he must be more specific. Does he refer only to that which we can see, feel, touch, hear, etc.? Or does he refer to any and all things which a creature could perceive by means of any conceivable combination of sensing mechanisms? Or to all of the above plus whatever else we may infer to be there on this basis? Or does he refer also to the order which holds among the denizens of 'out there'? Or is it exclusively that set of entities and their structures which give rise to the perceptions that we have? There may be a definite answer to each of these questions, and

'exist' may have a definite sense in respect to each. (For would not the answers coincide with interpretations of 'universe'?) But this only means again that 'exist', in its essential appearances, has different senses. In short: vague talk of what is 'out there' makes no sense until a meaning is specified; and once this is done for us mere mortals 'exist', again, can be used in different ways. - -

I think an objection such as the above arises out of a failure to appreciate the importance of theory-laden components within the nominally descriptive statements that one utters, and a concomittant failure to distinguish between the tidy theoretical structures we establish and the properties of the descriptum to which they are applied. If these distinctions are disregarded one can expect science to provide one with what we have called a 'description by correspondence', i.e. to express, although in a clearer form, the same order that obtains 'out there'. And since (within this view) there is a close correspondence between theoretical statements and their descriptums, why then must not all true theories be mutually compatible and the totality of these -- in the mind of an all knowing creature -- fully describe what is the case?

But this correspondence often does not hold, and all theories are not compatible. So any belief that one can generally refer to what is out there, in some meaningful manner -- without further specification or free of any theoretical bias -- is illusory.

For instance (as far as incompatible theories are concerned) within classical mechanics the characteristics of space are considered to be unaffected by the matter they contain and all dimensions of an object are absolute; yet within relativistic mechanics these claims are true

neither of space nor of objects. Again within classical mechanics the prediction of an event's occurrence -- if it can be established -- is absolute; yet when the laws of quantum mechanics are applied to the same data, this is never the case.

Or again, consider the manner in which the concepts of infinitely rigid bodies and of forces acting at infinitesimal points enter into classical physics; or that of a fourth "dimension" describable in terms of the product of a speed, time, and the square root of minus-one, as in relativity theory; or that of the motion of electrons and other fundamental particles expressed in terms of a wave-function containing complex numbers, as in quantum mechanics. It is, I think, evident that none of the above can be given any direct physical interpretation without altering or disregarding properties established by the theoretical symbolism.

So again, until one can show that there are indeed infinitely rigid bodies, infinitesimal points, a dimension which is so many units of imaginary numbers, and so forth, we must countenance the conclusion that theory-based components enter, and perhaps must ineluctably enter, into many of the fundamental descriptions that we make. And so, unless one specifies that concept, that theory of the universe in terms of which one operates, no meaningful reference can be made to what is out there, nor can one talk about its constituents, simpliciter. (Also cf. XII 1-2.)

And perhaps any reference -- even regulative -- to the use of existence-statements by an all-knowing being, is beside the mark. For this is relevant only if a close correspondence holds between the descriptum and that which one reports concerning it. This is the thesis of strong realism; it is of course not the unique position. Our descriptive

statements, as we have instanced, may in general be considerably underdetermined by experience, and so to be theoretically biased may be as much a characteristic of human knowledge as to be mortal is of human existence. Thus any discussion of 'the case', as our objector would have it, is warranted only in terms of a particular philosophic position. And so, in conclusion, there can be as many equally sanctioned theories of existence as there are logically and factually possible interpretations of 'universe'.

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#9. We are now in a position to provide what, we trust, are satisfactory answers to the remaining issues. Let us repeat the questions:

1) How can there be viable alternative theories of existence concerning one universe?

2) Are all existence-statements theory-laden?

3) In what way, if any, are existence-statements significant?

To these we add the following which have been noted in passing:

4) Is one constrained to assume as existents all entities to which existence is ascribed in essential occurrence? and

5) Is 'a exists' only a disguised way of endorsing the introduction of a language containing 'a'?

Interrelated as these questions are, it will be convenient to discuss 1) and 2) together. From these we proceed to 5), and then to 3) and 4).

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We have already answered 1), concerning alternative theories of existence, in saying that existence-statements are, strictly speaking, neither true nor false, simpliciter. However to say that they are logical permissives or their consequences (which as such need be merely unfalsifiable),

seems to leave things hanging. For most of the argument, preceding this explanation, was based in one way or another on the characteristics of the language, or of the concepts employed in talking about existents. It seems natural to consider that, when genuinely alternative theories are present, we investigate more than their conceptual and linguistic features. For certainly that which is outside our heads and extra-conceptual also contributes to their validation. And in particular, how can we be certain that -- not language -- but the universe itself is such that no theory-free existence-statements can be established. It is evident that -- were there such -- these could provide incorrigible premises and so serve to refute an otherwise self-consistent ontology.

We can see now that asking a question in this way is to put the cart before the horse. For we have shown that the relation that an entity bears to a universe, as an existent, is definable in terms of 'universe'. And a particular interpretation of 'universe' is determined only when definite values are assigned in schematic criteria such as those we have studied. (These, in one way or another, specify those units that are considered existents, i.e. elements or constituents, in terms of the various possible interpretations of 'universe'.) Once some set of definite values is established, one can then proceed to assign or deny elementhood -- i.e. existence -- to the entities one encounters. For then -- and only then -- one has only to study whether or not these entities satisfy each criterion as specified. And this of course is an empirical problem. Continuing along this line, one could then also determine whether the set of definite criteria were adequate, i.e. whether they applied to all entities that came within one's ken or not. One could determine, too, whether these



failed to bring into prominence those features of experience which one wished to maintain as conspicuous within it, etc.

All of this depends upon the criteria's first being made definite: once this is done, all else follows. But nothing of this sort can be accomplished within that primeval state prior to the specification of the criteria. For in this latter case, nothing more than the matrix 'a is an element or constituent of ---' is clear or definite. As noted above 'a exists', simpliciter, is on the same level of discourse as 'a is a descendant of Adam', or better yet 'a is in love with'. Although not totally vacuous, this can hardly be said to be a statement descriptive or otherwise. Thus unless some interpretation of 'universe' is specified, there can be no existence-statements. From which we conclude: there are no theory-free existence-statements.

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This conclusion is the keystone of this work: no expression of the form 'a exists', or 'a does not exist', is clear and definite except within the context of some interpretation of 'universe'. Each such interpretation serves to establish a concept or a theory of the universe. And so there can be no direct theory-free ascriptions or denials of existence. Since all other ascriptions, denials, etc. of existence depend upon these and contain these, we infer the general conclusion that there are no theory-free existence statements.

And from this it follows, also -- since there is more than one possible interpretation of 'universe' and thus more than one concept of

Universe -- no existence-statements are categorically provable. Rather existence-statements can be considered as true, only in respect to the being in force of a particular concept of Universe. Thus where existence-statements are provable, they are at best conditionally provable.

And also -- since the criteria of some interpretations may prove either unsatisfiable or incompatible -- existence-statements based upon these can be shown to be false. (These would be statements in what we have called factually or logically 'impossible' ontologies.) All other existence-ascriptions are, by the above, incapable of being categorically shown to be either true or false. And this of course is the basic tenet of the theory of permissives. (This theory merely gives positive content to this conclusion, by showing how the introduction of such unfalsifiable propositions as premises of an ontology makes it possible to consider other existence-statements as true within it.)

The failure of the classical approach to explain the presence of enduring ontological issues, is a corollary of the above: its presupposition of categorical provability is unsatisfiable in terms of our world as we know it. So too the failure of the strong linguistic approach is a corollary of the many senses of 'universe'. And I think we have also shown that its last-ditch defense -- that there is one preferred sense -- is itself based upon a particular interpretation.

To avoid misunderstanding, this is not to say that -- once criteria are introduced -- existence-propositions cannot be said to be true or false in terms of these criteria and their application to the given. On the contrary, no theory of existence would be significant were this not the case. But the essential point is that no use of 'exist' can

be clear or definite before a specific interpretation of 'universe' (and thus of 'existent') can be established. So one cannot use statements about the given to establish a possible ontology, on the contrary one employs an ontology to structure the given.

And as long as the relation between experience and theory is underdetermined by the former, so long will viable alternative theories of existence be possible.

In answering the above, we have in effect terminated this thesis. For our initial question concerned the recurrent presence of prima facie alternative ontologies. We argued in Chapter Twelve -- if we consider existence-propositions to be merely unfalsifiable -- that the presence of genuinely incompatible ontologies becomes then a legitimate consequence of the correct use of 'exist'. And similarly the failure of other approaches to account for philosophic issues of this kind can be explained if existence-propositions are permissives/ or their consequences. We have shown now that they are.

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#10. Let us consider briefly Carnap's analysis of existence-discussions as disguised recommendations for the use of a new linguistic framework. According to this view -- given the presence, within a language, of statements such as 'Red is a color' or 'Seven is a number', the propositions 'There are colors' and 'There are numbers' follow as nearly trivial consequences of the former. But this, Carnap observes, is the result of the linguistic conventions one introduces, and so philosophers certainly cannot be interested in asserting or denying such obvious conclusions. What ontological issues are really about is the decision to

Introduce words of this new type into subject position and thus to talk about new types of entities and their properties. But, within his view, this choice of language has no ontological commitment.

Although I do not find his exposition clear concerning this latter point, I think it can be justified along the following lines. First one starts with the dichotomy true-or-false or meaningless. Then one proceeds to note that internal questions concerning the existence of entities of a given kind can be answered: one has only to refer to the rules of the language and to the sentences which the language already contains. In this way ascriptions of existence, viewed in terms of the structure of a language, although nearly trivial, are meaningful. But if one talks about the existence of the entities so ascribed, as somehow a property of the entities concerned and independent of rules for the use of the corresponding terms, the truth or falsity of these claims now depends upon the relevant extra-linguistic data. Carnap proposes that no conceivable experiment could ever verify or falsify any existence-claim of this type. So, according to the canons of meaningfulness that Carnap accepts, any external use of existence-statements is meaningless. All uses of 'exist' are then either nearly trivial or meaningless. Thus the introduction of new subject-terms into language cannot possibly force one to assume (except as the result of linguistic conventions) that there are such entities.

But now let us ask: if the use of such words in subject position is merely a linguistic convention devoid of ontological commitments, does the use of any words commit one to a particular ontology? I suspect that Carnap would answer 'No'. Let us see why. If there were any such words or expressions, then the **specific ontology** established by the statements

containing these words, must be said to hold. But this is impossible: for to say this is to infringe Carnap's contention that existence-statements, inasmuch as they can neither be confirmed nor denied, are meaningless.

On the other hand if Carnap maintains that no words in any position have ontological commitment, then the use of 'exist', or of existential-is, which would normally establish this, is either vacuous or meaningless. If it is the former then it is functionally indistinguishable from predicative-is. But, in our view, this is the case only when all entities whatsoever are elements or constituents of the universe. This universe, with one exception to be noted in the following section, would be a universe containing all material units, including the universe as a material unit; all immaterial units, including the universal class; and all abstract units, including the universe as an abstract object. For in any restricted universe, elementhood must be denied to some units and so 'exist' and 'not-exist' must appear essentially. A nominalist, for instance, might want to say 'Two is a prime number' and still add 'Numbers do not exist'; or a materialist might complain that a tooth-ache is killing him and still claim that sensations do not exist. But for 'exist' to be vacuous, i.e. replaceable by means of predicative-is, distinctions such as the above cannot be maintained. Thus, if 'exist' is meaningful but vacuous, Carnap is committed to an interpretation of 'universe' in terms of an all-embrasive assemblage of possible objects. But then he must presuppose the correctness of this particular interpretation, i.e. he is committed to a particular ontology. But is this belief not as "metaphysical" as that of any other philosopher which he decries?

Or perhaps no use of existential-is can be considered meaningful

in its own right, inasmuch as no ontology seems to be either verifiable or falsifiable? This of course is to presuppose the positivist's criterion of meaningfulness. Wittgenstein, Austin, and many others have shown that there are many ways for a sentence to be significant without being true or false, and we have shown in particular that unfalsifiable propositions can play an important role in alethic discourse. So the positivist explication of 'meaning', even if it were to be consistently formulated, is far from unique. And further, if one rejects the dichotomy true-or-false or meaningless, it is inadequate. So Carnap's thesis, which we have been examining, is either self-defeating or, if it is valid, it is based upon canons and premises that, at best, are not the most credible among the available choices.

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Then what about his distinction between interior and framework questions? This serves his purpose, curiously enough, only when existence-statements are meaningless. For in all other cases, the external questions which underly discussion in one way or another are directly concerned with the acceptance or rejection of a particular interpretation of 'universe', or with the criteria of elementhood in such a universe, and only incidentally with the type of terms one is to employ. For instance a philosopher is not a nominalist because he says: we should not use class notation'; rather he is a nominalist because in his view, the universe (or his depiction of it) is to contain no unnecessary elements, and since classes do not satisfy this criterion, he avoids reference to them. So although discussion may concern linguistic frameworks, any decision concerning these is parasitic: one is primarily concerned with the choice of an interpretation of 'universe', or of the corresponding definition of 'exist'.

Similarly, internal questions concerning the existence of various

entities, are also far from trivial. For instance, given some otherwise adequate and acceptable interpretation of 'universe', it might be of singular importance to determine, with respect to this interpretation, whether experiences that have a fleeting character of that-which-one-might-call-'divine' warrant the conclusion that the Divine exists. Carnap, I think, succeeds in trivializing all such questions, internal or external, by making existential-is redundant, at best.

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We have argued that his thesis depends upon two presuppositions:

- i: some form of the verification or confirmation principle of meaning.
- ii. an interpretation of 'universe' as denoting HS.

There are no compelling reasons to accept the former, and thus his explication of existence-statements is ungrounded. But could one consistently and credibly maintain the latter as a presupposition of another view?

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#11. There are many prima facie advantages to considering some one universe, not necessarily HS, as basic. Such a choice would provide both a rationale for talking about the universe and a common ground for all discussions concerning existence: all reductive accounts might be established thus in terms of the same commonstock of existents. Ontologies would only differ in their choice of patterns of pre-eminence, etc...and 'exist', simpliciter, would have a definite meaning: namely to be an element or constituent of this particular universe. One could then maintain the definiteness of 'exist', in all its appearances, and at the same time distinguish between the existence of, say, material objects and of classes, according to

their respective criteria of unicity.

We do not wish to deny these advantages. But they can only be realized, as we have pointed out, if there are compelling grounds to accept one particular interpretation of 'universe' and to reject all others. For those who have still a hankering suspicion that it is meaningful to talk about the universe and 'exist', simpliciter, let us look again at this belief.

The totally helter-skelter universe includes too much. Were existence to be ascribed to all entities actual, possible, and impossible, 'exist' would be utterly vacuous. Someone of course might consider this no great loss, but even then a fundamental distinction would have to be established between logically impossible entities and others. (Were this not the case any body of statements, containing descriptions of the latter, would be self-inconsistent.) But if such a distinction is established between impossible units and others, although different words may be employed, it is tantamount to saying that the former do not exist -- or at least do not exist in the sub-universe that one now considers. Thus we throw out 'exist' only to introduce another term to take its place. Similarly one must also distinguish between the imaginary entities in a helter-skelter universe, e.g. hobgoblins, and those which are not, for instance Chairman Mao. Otherwise one might say that it was fitting to build a missile defense against the former.

Let us then consider a modified helter-skelter universe that contains all entities of any kind whatsoever, provided that they be possible (according to our usage of 'possible' entity), i.e. no definite description of any such entity is either logically impossible or false. We shall call



this universe 'HS\*'. Unlike HS, neither the round-square nor the chimera nor the fifty-first state of the United States in 1958 are denizens of HS\*. HS\* has this feature: anything of which it is true to say 'There is an x such that ...' is an element or constituent of HS\*, and the converse. Thus, if one could describe all the constituents of HS\* in some language, L, all elements of HS\* would be values of bound variables of L, and the converse. (There is a technical difficulty here -- the language, L, is impossible inasmuch as there are classes unspecifiable even in terms of a language with an infinite number of expressions. But this is not relevant to our purposes. See Quine (3) p. 273 n., also Quine (2) p. 95.) Or more loosely, in such a case:

To be is to be the value of a bound variable."

and from this it would follow:

There are no ultimate philosophical problems concerning terms and their references, but only concerning variables and their values; and there are no ultimate philosophical problems concerning existence except insofar as existence is expressed by the quantifier ' $(\exists x)$ ' " Quine (2) p. 224.

Except for one point, we are in accord with this. For we have argued that something is F if and only if F is an instance of predicate-invariance -- in this case a constituent of HS\*. Thus ' $(\exists x) Fx$ ' is true if and only if that, to which F is ascribed, can be said to exist in HS\*. Thus, in terms of the interpretation of 'universe' as HS\*, any use of the existential quantifier implies the existence of the values of its bound variables.

The exception is important. We can say: 'There is some number, x, and x is prime'. By the above canon, some number then exists. And this of course is compatible with the present interpretation of 'universe'. HS\* contains, among others, all logically possible immaterial entities;

this includes classes, and thereby numbers. But this consequence is of course anathema to a nominalist, e.g. Goodman:

The nominalistically minded philosopher like myself will not willingly use apparatus that peoples his world with a host of ethereal, platonic, pseudo entities. As a result, he will so far as he can avoid all use of the calculus of classes, and every other reference to non-individuals."

Goodman (1), 11.2 (p. 36).

Thus such a philosopher cannot accept HS\* as the universe -- nor is it even acceptable, to him, as one interpretation.

But might one not start off with HS\* and then by means of some reductive procedure, introduce just the elements one considers as individuals? Unfortunately, no. Only two types of reductive procedures are possible here. In the first, one removes any reference to contested entities as basic constituents by defining or describing them in terms of pre-eminent entities, the existence of which is uncontested. But if some x is defined or described in terms, say, of some y, and z, and these latter two exist, x exists. Thus one cannot define or describe away the existence of classes in HS\*. In the other type of reductive procedure a contested entity, x, is explicated in terms of some uncontested entities: thus any reference to the former becomes unnecessary. (This for instance is what Democritus does when he describes taste in terms of physical atoms.) But in doing this elementhood is denied to the contested entities -- i.e. the interpretation of 'universe' as HS\* is abandoned.

Of course there are innumerable interpretations of 'universe', and one is not constrained to consider only HS\*. But by the same reasoning

whatever construction would satisfy a nominalist would not be acceptable to a realist. Similarly for philosophers of other persuasions, e.g. phenomenologists. So any hope to find one absolutely preferable interpretation of universe and a corresponding theory-free sense of 'exist' appears chimeric -- and in terms of the premises we have employed and the definition of 'exist' introduced, such a hope is indeed totally so.

It also follows that Quine's criterion of ontological commitment is not universally applicable without further reservations. It holds in HS\*, but no self-respecting nominalist would countenance this interpretation of universe. It does not hold in any more restricted universe, unless one restricts one's language so that its bound variables take on only existents as values. This can be done, but then 'to be is to be a value, etc.' becomes a criterion governing the use of ' $(\exists x) Fx$ '. To consider it a sign of ontological commitment, in this case is to beg the question. Quantification, with its associated bound variables, is used to indicate the presence or absence of given predicates, i.e. items, and those complex configurations of these which we consider things. 'Exist' on the other hand expresses the relation of being-a-constituent (or an element) that holds between these and a particular universe. Since each has generally a distinct task to perform, it is well to keep them separate. The one significant exception is in relation to HS\*. The other is trivial: inasmuch as an  $x$  has some property, it is a constituent of some (otherwise unspecified) universe. In this way 'Some  $x$  is  $F$ ' is unrestrictedly interchangeable with ' $F$ 's exist' -- but since 'exist' is the name of a relation that without further specification can apply to anything, this latter use is vacuous. We are committed to the proposition that entities

of a particular kind exist, when we employ a particular interpretation of 'universe'. But all this has nothing to do, except incidentally, with bound variables.

It follows, too, inasmuch as there is no one absolutely preferable interpretation of 'universe' that there is no one common set of entities to which existence is ascribed. And thus no one reductive procedure recommends itself as uniquely qualified.

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Our argument now is fully general: we are committed to the proposition that entities of a particular kind exist, or are genuine, or real, or prominent when we adopt some one interpretation of 'universe' and some one of several relations of genuine-to-spurious, of pre- eminent to subaltern, and some one particular set of values of predicate- invariance and of evidentness. Once these are fixed -- and only then -- a particular vision of the universe does take shape, very much as dewdrops collect upon a spider's web. Each such interpretation can be considered as an armature, set before the obscure contents of our experience, where bit by bit the cosmos that we know appears.

Thus (unless we alter our language and the entire nexus of conceptual relationships contained within it) we cannot ask: What is, what exists, what is there before and independent of our theories? For either the reply is: 'Everything', since any item is a constituent of some universe; or else a particular reply is given as if in terms of some definite sense of 'exist'. But, however much one may regret this, the first is totally redundant, and the second, nonsense.

#12. One final question might be posed: What purpose does any one interpretation serve, if there are many equally apt? Strictly speaking, an answer to this is beyond the compass of our study, for we are concerned with the logic and not the ends of existence-statements. But a closing remark may nevertheless be in order. Let us for an instant ignore philosophy and consider the brain. Each moment that we are conscious our central nervous system is said to receive several thousand discrete bits of information from the sensory nerve ends of the peripheral nerves. The end product of this is in our awareness of objects as perceived with their properties and relations perspicuously present.

I suggest that philosophers in the halcyon days -- before Hume and Kant made this impossible -- conceived of their activity as an extension of the above; as if the task of philosophy were to discern and to make cognizable the most general order within the bewildering, rich, and varied manifold of entities that we encounter. And such an activity had definite merits. It enhanced the value and the power of the bits of information and of the beliefs one held at any time by incorporating them into a cohesive system; it provided both starting points and conceptual tools for further investigations; and certainly not least in importance, the vision of the universe so discerned helped satisfy the deep human thirst for order.

But as we remarked above, a particular vision of the universe forms upon the frame of one's interpretation. But this is liable to the elements: with time it is deformed, stretched, broken, and its elements refashioned into another structure. And not only do these changes occur in time: there is also considerable synchronic diversity. And further: it seems that any formulation contains also an intrusion, perhaps inescapable, of subjective elements.

In view of this, any interest in the larger questions of existence might appear at best quixotic, a lamentable hankering for the better days. And yet:

It is an abiding characteristic of man to believe that the old virtues are disappearing, the old values disintegrating, the old ways no longer honored.. [But] the moral order is not something enshrined in historic documents, or stowed away like the family silver, or lodged in the minds of the pious ... It

is an attribute of a functioning social system. As such it is a changing living thing, liable to decay and disintegration as well as to revitalizing and reinforcement..." (NYT) Feb. 9, 1968, p. 26; *Italics mine*.

So too a vision of the universe is embodied within -- and responsive to -- the changing patterns of attitudes, and knowledge, of the general form of life in force at any time.

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That which does separate us from the past is the realization that speculate as we may, alternative formulations are always there: ours (whosoever it be) represents one option, one likely story among many. But although this may prove chastening to that absolutist streak in man, it is not without a sense of pride one realizes how these stories (however circumscribed their credibility may be) are in part of our own making -- and all that one can make.

END OF THESIS. PLEASE TURN TOPAGE 450.

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