THE UNIVOCACY OF 'EXISTS'

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A THESIS

in

The Department

of

Philosophy

Presented in Partial Fulfillment of the Requirements for
the Degree of Master of Arts in Philosophy
Concordia University
Montreal, Canada

April, 1976

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ABSTRACT

This paper discusses a number of views connected with the predicate 'exists'. It is argued that W.V.O. Quine is correct in his view that 'exists' is a univocal predicate, but his reasons are shown to be ill-founded. An examination of Fred Sommers' work will provide a more substantial criterion for this contention.

Russell's theory of types, as it applies to language, is examined and shown to be an inadequate theory. It is rejected on the grounds that the relation 'is the same type as' is an equivalence relation. Russell's types do not retain transitivity for this relation, and it is shown that Sommers' type definitions do retain this transitivity.

A distinction between the category sense of 'exists' and the class sense is maintained. It is argued

that this distinction indicates that we must distinguish between existential commitment and ontological commitment. The problems connected with denying the existence of an entity are dispelled on the basis of this distinction. It is concluded that reference to an entity is prior to the question of the existence of that entity.

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ACKNOWLEDGEMENTS

I wish to express my sincere thanks to Dr. Roger B. Angel for his kind assistance and for his untiring patience during the past two years.

In addition, I would like to acknowledge Ms. Julie Kaufmann and Ms. Sari Bercovitch for their work in preparing the typescript. Finally, I would like to express my gratitude to Ms. Constance Henderson for her incisive comments.

INTRODUCTION

In this thesis, we will deal exclusively with the debate between those philosophers who maintain that 'existence' is an equivocal term, and those who maintain that 'existence' is an univocal term. Of the former, there are such people as Bertrand Russell, Gilbert Ryle, and that famous Quinean fictitious philosopher, Wyman. Of the latter are such people as W. V. O. Quine and Fred Sommers. From the outset, our position will favour the latter group.

Those philosophers who maintain that 'existence' is equivocal are sometimes referred to as platonists, though they are not to be confused with followers or disciples of Plato. They are called platonists, or platonistic, because to maintain the equivocacy of 'existence' leads to a positing of at least two types of reality, and sometimes several.[1] On the one hand, we have the familiar material objects of the physical world, which are said to exist in

space and time, and which are capable of being observed through the senses, while on the other hand, there is a host of non-corporeal entities, non-material bodies, which are known intellectually, but have no material instances. These, it is claimed, exist, but not in the same sense of the word 'exists' that material objects are said to exist.

Those philosophers who deny the equivocacy of 'existence' are sometimes called nominalists, though the insistence on the univocity of 'existence' is not a defining criterion of a nominalist. It may be a necessary condition, but it is not a sufficient condition, and under these circumstances, the term nominalist must be considered as inappropriately applied. A philosopher may deny the equivocacy of 'existence' and still maintain that abstract entities exist. All that he would be claiming in this case is that, if both abstract entities and material objects exist, they must exist in essentially the same sense of the term 'exists'. That there is a vast difference in the nature of abstract entities and material objects must be attributed to the two types of things, and not to two types

of existence, or, correspondingly, two senses of the term 'exists'.

For students of Quine, this observation is very important, as he maintains a number of compatible, though seemingly disparate, positions regarding the issue. Quine insists on the univocity of 'existence', but that abstract entities are essential to our ontology, that he is not a nominalist, but that he has nominalist sympathies. We will attempt to show, in the course of this analysis, that these positions of Quine, various as they are, are entirely acceptable.

This thesis will begin by examining Quine's position and arguments regarding the univocity of 'existence'. We will show that, although Quine's conclusion is correct, his argument contains a serious flaw. Quine, seemingly aware of the distinction between the generality of a term and the equivocacy of a term, argues in favour of blurring this distinction in order to support his position on the univocity of 'existence'. This flaw will be made very

clear in our discussion of Quine's analogy, and we will show that this distinction is not only to be recognized, but is also to be strictly enforced for the purposes of this analysis.

After demonstrating the failure of Quine's analogy, we will leave Quine, and, in the second chapter, turn to a point in Russell. Although we reject Quine's method of arguing for the univocity of 'exists', we will not reject his conclusion. With Russell, we will examine a proposed criterion for similarity of types, commonly called Russell's Theory of Types. We will also examine Ryle's definition of what it is to be a category mistake, and show the great similarity of this with Russell's type theory. Proceeding from Russell and Ryle, we will examine Max Black's devastating criticism of Russell's theory of types, and Black's proposed Transitivity Rule, as a negative criterion for distinguishing type difference.

Black suggests that Russell's theory of types holds not only for facts, as Russell proposed, but also

for terms of a natural language. In fact, Black maintained that his holding to the linguistic interpretation of the theory of types was the only way Russell could avoid what Black refers to as the paradox of dissolution. We will expand this and show that Black was correct. Using Black's Transitivity Rule, we can show that Russell's theory of types is inadequate for distinguishing equivocacy of terms, and thus cannot be used, as Ryle used it, to distinguish between two senses of 'exists'. In fact, Black demonstrates that Russell's theory of types is too powerful, and that it enforces ever stronger distinctions where we would not normally wish to say that a term is equivocal. This would seem to indicate, in the long run, that a theory like that proposed by Russell, and used by Ryle, cannot be applied to ordinary language without serious and disagreeable consequences.

The examination of Russell, Ryle and Max Black will proceed hand in hand with an exposition of the theory of types put forth by Fred Sommers. It will be in the examination of Sommers' work that we will resolve the diffi-

culties of maintaining that 'existence' is an univocal term. Through Sommers' work, we will be able to see the reason for Quine's incorrect position regarding the general nature of heterotypical predication. We will correct Quine's analogy, and show that Quine's conclusion regarding the univocity of 'existence' must be the correct position. The main thrust of our exposition of Sommers will be directed toward showing that the equivocacy of 'existence' is an unfounded contention, based, in the case of Ryle, upon an implicit type theory that is incapable of deciding when heterotypical predication is equivocal and when it is not. Using Sommers' work, we will show that no situation can arise such that we will be able to enforce equivocacy on the predicate 'exists'. Thus we shall eliminate the foundation of all those philosophers who hold positions in the spirit of Ryle. We will be able to show that the claim for the equivocacy of the term 'existence' results in a series of question begging assertions, and is therefore circular.

Large portions of the second chapter will be devoted

to a clear exposition of the important contributions of Sommers: his theory of types, his criterion for type difference, and his Rule for Enforcing Ambiguity.

The third chapter will consist of a further clarification of Sommers' ideas and a practical demonstration of how these ideas apply to some of the traditional problems in philosophy. Here we will return to Quine, showing the bearing of Sommers' theories on the question of the terms 'existence' and 'exists'. We will attempt to answer some of the questions raised by Quine, particularly in his article On What There Is. We will make an important distinction between sense and nonsense, showing how the former can denote, even mistakenly, while the latter can never denote. This distinction, if valid, has an important bearing on the realism-nominalism debate, and this bearing will be discussed.

The fourth and final chapter will consist of two sections. The first section will comprise the closing remarks and a summation. The second section will consist of an example of how we might apply Sommers' type theory

to Strawson's notion of persons.

The foregoing constitutes a general outline of the course this thesis will take, sketches some of the problems to be dealt with, and presents some of the possible solutions. The problems arising in connection with the predicate 'exists' have been an ongoing concern in philosophy since the time of Plato and Aristotle. It is hoped that some of the observations and distinctions that have been put forth in this thesis will help to clarify some of the attendant problems that have troubled the history of philosophy, and continue to trouble contemporary philosophy.

CHAPTER I

QUINE AND THE STANDARD OF ONTOLOGICAL COMMITMENT

Quine's Analogy

Quine claims to have shown the necessity of a straightforward criterion of ontological commitment. He asserts, as a criterion, that the existential quantifier, (Ex), is the one translation of all existential assertions. Thus, to be is to be the value of a bound variable.[1] This means that any sentences of the form, 'there is such and such...' may be rewritten as, (Ex)(...x...), x being that thing which is bound by the existential quantifier.

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[1] W. V. O. Quine, "Designation and Existence," Journal of Philosophy 36, No. 26 (1939):706; W. V. O. Quine, "Notes on Existence and Necessity," Journal of Philosophy 40, No.5 (1943):116; W. V. O. Quine and Nelson Goodman, "Steps Toward a Constructive Nominalism," Journal of Symbolic Logic 12, No.4 (1947):105; W. V. O. Quine, From a Logical Point of View, 2d ed., rev. (New York:Harper & Row, Harper Torchbooks, 1961), pp. 12, 103; W.V.O. Quine, Word and Object, (Cambridge: The M.I.T. Press, 1960), p. 242; W. V. O. Quine, Ontological Relativity and Other Essays, (New York: Columbia University Press, 1969), p. 92.

There is considerable argument among philosophers as to the possibilities of translating all of the platonistic assertions of science and mathematics into this form while rendering such sentences ontologically innocuous. This difficulty does not arise here for Quine, however, because he is merely attempting to give a criterion for uniformity among various theorists. Whether nominalism is possible is not a problem for Quine, but a problem for nominalists. Further, by his own admission, Quine is not a nominalist, although he does admit to having nominalist sympathies.[2]

At this stage we shall deal directly with the major flaw in Quine's argument. A fundamental tenet of any position which has a nominalist affinity must be an insistence on the univocity of the term 'exists'. It is apparent that if one permits a person to talk of two or more distinct senses of existence, that is, talk in a manner which condones that A may exist in such and such a way, while B may exist in

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[2]Quine, Word and Object, p. 243.

such and such another way, then it is going to be difficult to elicit one consistent commitment about his ontology. It is this kind of equivocacy of the term 'exists' which has allowed platonistic philosophers to talk about abstract entities and concrete objects in the same breath, defending their views on this alleged equivocacy. In this manner a sly platonist may reap the harvests of multiple ontologies while cultivating only one!

In numerous places in Quine's work we can witness his distaste of the equivocal use of the word 'exists'.[3] Yet, as reasonable as his intuition may seem (we intend to demonstrate just how reasonable), Quine has not been without his difficulties in enforcing its acceptance. His troubles are most evident in Word and Object, where he maintains an intuitively correct position with regard to terms like 'exists', and a counter-intuitive position with regard to terms such as 'hard', 'light', and their like.[4]

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[3]Quine, "Notes on Existence and Necessity," p. 116; Quine, From A Logical Point of View, p. 105; Quine, Word and Object, p. 242.

[4]Quine, Word and Object, pp. 130-131.

If these difficulties were to be cleared up with a consistent theory of predication which accords with our intuitive interests, it would do much to support the claim that 'exists' must be an univocal term.

Lest the reader be misled, we will briefly digress from the present discussion to make a few clarificatory remarks. In the remainder of this thesis we will have recourse to the phrase "the predicate 'exists'", and, in view of arguments put forth by Kant and Russell, this phrase will have to be explained sufficiently to render it innocuous. Our reference to the phrase "the predicate 'exists'" in no way commits us to the once standard usage that preceded the days of Kant's analysis, when 'exists' was considered to be a determining predicate, as well as a grammatical predicate, and was held to attribute the property existence to its subject.[5] However, in spite of the contemporary view, that 'exists' is not a proper predicate,

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[5] Immanuel Kant, Critique of Pure Reason, trans. Norman Kemp Smith (New York:St Martin's Press, 1965), pp. 500-506.

it appears most often in the predicative position. Today we have come to understand a sentence like 'the chair exists' to mean simply that there is a chair, and we will continue in this thesis to understand 'exists' in this manner, even when referred to as "the predicate 'exists'". 'Exists' in the predicative position is a common and convenient formation, and we shall make reference to 'exists' as a predicate only with the clear understanding that we are using it in Quine's sense of 'there is' or 'there are'. It is only to facilitate the following discussion that we will continue to speak in this manner.

Quine talks of attributing existence in the form of the existential prefix of quantification, maintaining that

> ...no distinction is being drawn between 'there are' of 'there are universals' and 'there are' of 'there are hippopotami' and 'there are' of '(Ex)'; 'there are entities x such that'.[6]

Quine argues that to contest this criterion is to re-use

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[6]Quine, From A Logical Point of View, p. 105.

the familiar notion of 'there are' in some new sense, with which he will not concern himself. However, unless Quine is prepared to concern himself with alternative senses of 'exists' or 'there are', as he prefers, he will have failed to establish a criterion which is at all persuasive to everyone, although he may be entirely correct in his insistence on the univocity of 'there are' and 'exists'. What must really be done is to demonstrate that there can be no equivocal use of 'exists', 'there are', and '(Ex)'. This will be the central aim of this thesis.

In Word and Object Quine attempts to deal with this problem from the following perspective, that is, from the analysis of the applicability in predication of various words, among them, 'hard', 'light', and 'exists'.[7] It is here that Quine seems to be intuitively correct about 'exists' and its like, and intuitively wrong about 'hard' and 'light' and their like. Since he approaches the problem from this perspective, it would seem beneficial

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[7]Quine, Word and Object, pp. 130-131.

if we could somehow accord our conflicting views on these two intuitions and put the case to rest, so as to proceed to the more pressing difficulties concerning abstract entities. What follows will be an account of Quine's attempt to prove that 'exists' must be univocal.

Quine begins with a simple analogy, choosing a singular term and arguing for the case of the general term. Citing the example of the proper noun 'Paul', a singular term, he states that the reason why its denotation is multiple is due to its wide range of applicability. Each specific utterance of the word 'Paul' purports to name one specific man, the ambiguity arising not because the term is equivocal but because there are thousands of men named Paul. The ambiguity is not in the name 'Paul', but in the objects that 'Paul' purports to name.

In the case of an admittedly general term, Quine asks how much of the term's multiple applicability is due to ambiguity and how much is due to the generality of the term. With the general term 'hard', we ask ourselves if

we ever, in fact, attribute 'hard' to chairs and not to questions. In response, Quine urges that, despite the seeming syllepsis of 'the chair is harder than the question', the ambiguity resides not in the fact of the generality of the term 'hard', that it is used for many different types of things, but in the dissimilarity of these different types of things, the dissimilarity of chairs and questions. The word 'hard' is merely more general than other predicates, for example, 'is capable of being sat upon', which we would never predicate of questions. Yet there is a difficulty here. The main weakness of the line of argument that Quine would like to use is the failure to make a very clear distinction which must be maintained between generality of a term and what we call equivocacy of a term. We consider a term to be ambiguous or equivocal if it has two distinct meanings when applied to two different subjects, although a term which is equivocal when applied to a certain pair of subjects may be univocal when applied to another such pair. Taking the term 'hard' as a prime example of equivocacy, we can delineate at least four distinct senses of the term. They are exemplified by

the following four sentences: 'Wood is hard.'; 'Water is hard.'; 'Questions are hard.'; 'The woman's face is hard.' In each of these cases the predicate 'hard' has an entirely different sense. This is due to the ambiguity of the predicate 'hard'. More correctly, we will call it the equivocacy of the predicate 'hard'. By contrast, the generality of a term is the range of things to which it may be univocally predicated. For example, in the sense in which wood is hard, we may univocally say that diamonds are hard, chairs are hard, concrete is hard, the ground is hard, and so forth. In the sense in which water is hard, we may say that mineral water is harder than rain water. On the other hand, diamonds and concrete are not harder than mineral water, nor is Mary's facial expression. We may say that Mary's face was harder than John's face, or Mary is as hard hearted as John, but neither Mary's nor John's face is harder than Aristotle's question. Again, it makes sense to say that Professor Smith sets harder exams than Professor Jones, but his questions are not harder than Mary's face, or John's chair, or fresh rain water. With the preceding examples in mind, it should not be difficult to distinguish equivocacy in a term from mere generality. It will clarify

what is to follow in our discussion of Quine's analogy.

Quine does not seem too worried over the above mentioned "seeming syllepsis" because he wants to set the stage for an identical analysis of the nature of predicates like 'exists'. There are those who would like to maintain that 'exists' must be equivocal, when spoken of material objects and abstract ones, that there are in fact two distinct senses of 'exists'. Quine asks for possible evidence for this spurious view, and suggests that it is more reasonable to consider 'exists' true and univocal of both concrete objects and abstract entities, that it is a very general term, similar to 'Paul', with a wide range of applicability.[8] What is indicated though, is Quine's view that the word 'existence' does not necessarily connote spatio-temporality, and that we cannot account for the fact that material objects are spatio-temporally existent, while ab-

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[8]Quine, "Notes on Existence and Necessity," p. 116. "...this prefix /Ex/ has a very broad sense 'there is something such that', and does not connote existence in any peculiarly spatial or temporal sense. The statement:'(Ex)(x is a fish & x flies)' does affirm the existence of something in space and time, but only because fishes and things that fly are always in space and time..."

stract entities have some alternative existence merely because of an alleged ambiguity or equivocacy in terms like 'exists', 'there are', and '(Ex)'.

Indeed, this view is not at all shocking or original, as both Plato and Aristotle held that the terms 'exists' and 'there are' are applicable or predicable, either truly or falsely, of practically everything.[9] In deference to Plato's Form of Existence being one of the Five Greatest Forms, we shall refer to such predicates as 'exists','is real', and 'is interesting' and their like as being higher predicates because they are most general in their range of applicability. That predicates like 'red', 'hard', and 'light' and their like are to be called lower predicates becomes obvious, due to the fact that they are predicable of fewer types of things. This will be clarified at the end of Chapter II.

The question that immediately confronts us is the

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[9]Plato Sophist 254d; Aristotle Metaphysics 6. 1017a 23-24.

continuity of the analogy from the name 'Paul' to a general term like 'hard' and finally to an even more general term like 'exists'. That Quine is correct in locating the ambiguity of 'Paul' in its objects of reference seems to be a reasonable assertion, but does this hold true for words like 'hard'? Remember, we still have our "seeming syllepsis" of the sentence, 'This chair is harder than that question', and we would like to argue that this syllepsis indicates something faulty in Quine's analogy.

The fundamental flaw in Quine's analysis of the terms 'Paul' and 'hard' is as follows. The ambiguity of the term 'Paul' is due entirely to its generality, whereas the ambiguity of the term 'hard' is due not to its generality but to its equivocacy. 'Hard' has more than one sense as we have already demonstrated with examples given to distinguish generality from equivocacy. Quine wants to avoid the problems of heterotypical predication by simply denying that there are any problems. The reason why Quine asserts that there is no difficulty in saying that chairs are as hard as questions stems from his desire to continue

the analogy to the third step and hold that 'exists' must be univocal over things of different ontological types. If 'hard' cannot be maintained as univocal, the analogy would disintegrate. Can we correct the second step of the analogy by eliminating the syllepsis, without opening the doors to an equivocal position regarding 'exists', 'there are', and '(Ex)'?

Univocity

Our last section concluded with a question; it is hoped that this section will conclude with an answer. It is in the recent work of Fred Sommers that we are provided with just the account that is needed to justify Quine's hopes about the analysis of 'exists', while clearing up our doubts concerning what we have referred to as the lower predicates like 'hard'.[10] What follows will be a general outline of Sommers' work and how he has shown that Quine must be correct on the issue of 'exists' without having to

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[10]Fred Sommers, "The Ordinary Language Tree," Mind 68 (1959); Fred Sommers, "Predicability," Philosophy in America, ed. Max Black, Muirhead Library of Philosophy (Ithaca, N.Y.:Cornell University Press, 1965); Fred Sommers, "Types and Ontology," Philosophical Logic, ed. P. F. Strawson, Oxford Readings in Philosophy (Oxford:Oxford University Press, 1968).

commit himself to the univocity of terms like 'hard' when they are predicated of things like questions and chairs.

As was mentioned in the preceding section, we felt that Quine was quite correct in his analysis of the word 'exists', while he appeared to be intuitively incorrect in his account of predicates like 'hard'. It may also be remembered that certain general predicates were considered to be higher than others, 'exists', 'is interesting' being higher than 'red', 'hard', etc., and our criterion for so considering them agreed with such philosophers as Plato and Aristotle. The reason was that we considered the general range of the applicability of the predicate, the range of types of things of which it is predicable, either truly or falsely, but not absurdly.[11] Thus, 'exists' is one of the very highest of terms because it is predicable of everything from fishes (there are fishes, fishes exist, (Ex) Fx) to prime numbers, (there are prime numbers, prime numbers exist, (Ex) (Nx & Px)). It makes sense to say of anything

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[11] Here we are following Sommers' notion of ontological type as he explains it in section one of "Types and Ontology".

that 'it exists' or that 'it does not exist', and there are but few sentences using 'exists' in the predicative position which are nonsensical. This is exemplified by the rule of quantifier negation, as $-(Ex) = (x)-$ and $(Ex) = -(x)-$ indicates that the range of the absolute predicate 'exists' is universally applicable.[12] It is plain to see, on the other hand, that a predicate like 'hard' does not have an universal range of applicability; indeed, it is applicable only to a limited number of types of things. This might be demonstrated by a simple instance in which it would be vacuous or category-incorrect to predicate 'hard' of something, for example, 'the number 2 is hard'. This appears to violate most sensibilities concerning the number 2.[13]

Quine, being concerned to preserve the univocity of 'exists', says that any apparent ambiguity in the word 'exists' must extend from the type difference of what is

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[12]Here we are following Sommers' notion of what an absolute predicate is. This may be found in detail in his articles, "The Ordinary Language Tree," p. 162, and "Predicability," p. 272.

[13]Gilbert Ryle, The Concept of Mind, (New York: Barnes & Noble, University Paperbacks, 1966), pp. 16-17.

said to exist. Quine also feels that we must consider 'hard' univocal over chairs and questions, the apparent ambiguity of the word 'hard' arising in the type difference of chairs and questions. For, if we allow that 'hard' is equivocal there would be no grounds to support Quine's view that 'exists' is univocal, for the continuity of his analogy is broken. Indeed, it could be argued, in contrast to Quine, that the inherent weakness due to the syllepsis arising with the univocal view of 'hard', when predicated of chairs and questions, indicated that 'exists', too, was an equivocal term. As Quine cannot permit this, he concludes that 'hard', as well as 'exists', is univocal and unambiguous.

It is at this point that Sommers asks a crucial question, for if 'hard' is in fact univocal over chairs and questions, then it should make perfect sense to ask of Quine whether this chair is harder than that question. Without further ado, it appears very difficult to make sense, in any literal way, of this query. We have here three terms, 'chair', 'question', and 'hard', of which it

makes sense to say that 'question' and 'hard' are related, and 'chair' and 'hard' are related, while it does not make sense to say that 'chairs' and 'questions' are related. What is meant by 'related' will be rigidly defined in the succeeding chapter.

On the other hand, it is not difficult to construct cases where certain predicates are univocal when applied to individuals of different ontological types, as Sommers points out. Consider the following triad, 'headache', 'lecture', and 'lasts an hour', and the following sentences:

I. My headache lasted an hour.

II. My lecture lasted an hour.

III. My headache lasted as long as my lecture.

In the third sentence, there is no syllepsis occurring between the terms 'headache' and 'lecture', unlike our previous example of 'chair', 'question', and 'hard', but does this justify our concluding that lectures and headaches are of the same ontological type? We shall demonstrate that this cannot be the case. The question which we must

answer is as follows:

> When does a type difference force ambiguity upon a predicate? Why, for example, must 'hard' be equivocal over chairs and questions, and 'lasted an hour' univocal over lectures and headaches?[14]

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[14]Sommers, "The Ordinary Language Tree," p. 161.

CHAPTER II

THE DEVELOPMENT OF A THEORY OF TYPES FROM RUSSELL TO SOMMERS

Russell's Theory of Types

Historically, we have to trace a lengthy journey through the theory of types, starting with Russell,[15] in order to get at the root of our misgivings about Quine's calling 'hard' an univocal predicate, and in order to confirm our positive intuition about his calling 'exists' an univocal predicate. Fortunately, this analysis is available, and this chapter will be devoted to an explanation of the course that Sommers has taken.[16]

A type (sometimes called a sort, a category, or an ontological type) is not to be confused with the ordin-

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[15] Bertrand Russell, "Logical Atomism," Contemporary British Philosophy, 1st series, ed. J. H. Muirhead (London: Allen and Unwin, New York: Macmillan, 1953), p. 370.

[16] Sommers, "Types and Ontology," pp. 138-153.

ary notion of class, for the ontologist would consider that the following three classes (sets), the set of men, the set of even numbers, the set of prime numbers, actually comprise only two types.[17] Types are special sorts of classes, and Russell was among the first to give a more specific definition of what an ontological type might be.

> The definition of a logical type is as follows: A and B are the same logical type if, and only if, given any fact of which A is a constituent, there is a corresponding fact which has B as a constituent, which either results by substituting B for A or is the negation of what so results. To take an illustration, Socrates and Aristotle are of the same type because 'Socrates was a philosopher' and 'Aristotle was a philosopher' are both facts; Socrates and Caligula are the same type, because 'Socrates was a philosopher' and 'Caligula was not a philosopher' are both facts.[18]

What Russell is saying here is that two things are of the same type (Socrates and Aristotle) with respect to a monadic predicate P (is a philosopher) if, and only if, P is significantly predicable (that is, truly or falsely, but not absurdly) of both things. Let us give another ex-

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[17] Ibid., p. 139.

[18] Russell, p. 370.

ample.

I. Let P = is a philosopher

a = Caesar

b = Socrates

II. Let P = is a philosopher

a = Caesar

b = industrial revolution

In the first case above, with respect to the monadic predicate, 'P', 'Caesar', and 'Socrates' are of the same type, because 'Pa' and 'Pb' are both significant predications. On the other hand, the second case shows that with respect to the predicate 'P', 'Caesar', and 'industrial revolution' are of different types, because 'Pb' is an absurd predication. The sentence, 'The industrial revolution is a philosopher' is meaningless.

At this point it might be profitable to allay any doubts or suspicions concerning the interpreting of Russell's theory of types in terms of predicates and predication, instead of in terms of facts, as Russell had originally

stated. To do this, we will have to examine Black's criticism of Russell's theory of types in detail.[19]

Black charges that Russell's theory of types results in the paradox of dissolution of types.[20] Here is Black's paradox.

> Let it be supposed that K and L are of the same type, as defined above, and K and M are of different types. Then the following statements are true:
>
> (1) "L is of the same type as K" is a fact,
>
> (2) "M is not of the same type as K" is a fact.
>
> Now the second fact is the negation of what results from substituting M for L in the first fact. And the situation is formally analogous to that used for illustrative purposes by Russell, with L, M, and being of the same type as K corresponding respectively to Socrates, Caligula, and being a philosopher. Since L and M can replace each other in the manner specified in the definition, it follows that L and M are of the same type.... Expressed otherwise, the argument would seem to establish that, if there are at least three entities in the world, it is impossible that they should not all belong to the same type.[21]

This demonstrates that Russell's theory of types presents a situation in which it will be impossible to distinguish

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[19] Max Black, "Russell's Philosophy of Language," The Philosophy of Bertrand Russell, ed. Paul Arthur Schilpp, The Library of Living Philosophers Vol. 5 (Lasalle, Ill.: Open Court, 1971) pp. 229-255.

[20] Ibid., p. 235. [21] Ibid., p. 235

when two things are of different types, even when they are assumed to be different. Black feels the only effective way to avoid this initial difficulty is to interpret the theory of types as holding between words and not entities. He does this in the following manner:

> Let the locution "K and L are of the same type," be abandoned in favor of the expression "the words 'K' and 'L' are syntactically similar" (and let it be agreed that in such cases 'K' and 'L' shall be said to belong to the same syntactical type). With this understanding, the sentences (1) and (2) above must be re-written in some such form as
>
> (3) "lamda is of the same syntactical type as kappa" is a fact,
>
> (4) "mu is not of the same syntactical type as kappa" is a fact,
>
> where lamda, mu, and kappa are now words. And from this it follows that only the names of all three words will be syntactically similar....
>
> If a linguistic translation of Russell's theory on the lines above should prove feasible, there will still be required further modifications, if contradiction is to be avoided.
>
> There are certain syntactically polygamous contexts able to recieve words of the most diverse syntactical types without degenerating into nonsense....[22]

Black, of course, has in mind the example of "I am thinking about Russell" and "I am thinking about continuity", which would lead us to assert that 'continuity' and 'Russell'

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[22]Ibid., p. 237.

are syntactically similar terms, if we follow Russell's theory. This, of course, leads to the dissolution of types (this time syntactical types) once again.

Black proposes the solution to this dissolution of types, but first we will return to Ryle's notion of category mistakes, and show its similarity with Russell's theory of types. Sommers calls this type, that Russell has defined, an alpha-type, and summerizes Russell's definition as follows: Every member of an alpha-type is spanned by the predicate which defines it. A predicate is said to span a thing if it can be predicated either truly or falsely, but not absurdly, of that thing.[23]

A second, though parallel notion of a logical type can be found in Ryle's definition of a category mistake or zeugma-like expression.[24] For Ryle, a category mistake would be made if one were to conjoin two syntactically dissimilar terms to a single substantive in the same sen-

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[23]Sommers, "Types and Ontology," p. 140.

[24]Ryle, p. 15-18.

tence. For example:

I. She came home in a sedan chair and a flood of tears.

II. The cape was stormy and loose at the shoulders.

What can be seen from Ryle's notion of a category mistake is that when two predicates are not univocally applicable to the same thing they constitute a category mistake when they are conjoined. It may be noticed that while Russell uses the type notion for a class of THINGS, Ryle uses his for a class of EXPRESSIONS. Sommers calls Ryle's type a B-type, and defines it as follows:

> If P and Q are monadic predicates which can be significantly applied to one thing then the sentence (PQ) is not a type mistake. In general, if 't' is some thing, then the set of all and only those predicates which span 't' form a type. Call this predicate type a B-type.[25]

To clarify this, let us look at an example.

Let P = is a philosopher

Q = is a man

t = Socrates

Because 'Socrates is a philosopher' and 'Socrates is a

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[25]Sommers, "Types and Ontology," p. 140.

man' are both significant and correct sentences, the sentence 'PQ' is not a type mistake, (that is, 'the man is a philosopher'). In general, all of those predicates ($P - P_n$) which are significantly predicable (span) a given thing (Socrates, in this case) would form the class of expressions we call a B-type with respect to 't'.

Until the advent of Sommers' work, the criticism by Max Black had completely upset the formalists' attempts for a comprehensive theory of types, and, as we shall see presently, Quine, too, is unaware of the progress that Sommers has made. Fundamentally, Black's criticism of Russell (and it applies to Ryle) is that their notions fail to be transitive for the relation 'is the same type as'.[26] It might be expected, if a and b were of the same alpha-type, and b and c were of the same alpha-type, (or P and Q of the same B-type, and Q and R of the same B-type) that a and c would also be of the same alpha-type (likewise P and R would be of the same B-type). Black shows

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[26]Black, pp. 237-239.

that this simply cannot be the case, for we can give examples to show that if a and b are of the same alpha-type and b and c are of the same alpha-type, it is not necessarily the case that a and c are of the same alpha-type, for a and b may be of the same type with respect to P while b and c are of the same type with respect to Q.

Let a = Russell

b = Caesar

c = industrial revolution

P = is a philospoher

Q = is historically important

Thus a and b are of the same type with respect to P, and b and c are of the same type with respect to Q. However, neither b and c nor a and c are of the same type with respect to P. Similarly, we can show that Ryle's B-type notion fails of transitivity.

Let P = is a philosopher

Q = is interesting

R = is prime

a = Russell

b = seven

Thus P and Q are of the same type with respect to a, and Q

and R are of the same type with respect to b, but the sentence 'PR' is a category mistake with respect to either a or b. There is nothing which is a philosopher and which is prime.

We can see now that both Russell's and Ryle's definition of a logical type appears inadequate. Sommers proceeds to define type notions of a smaller scope, one corresponding to alpha-types and one corresponding to B-types, where the relation 'is the same type as' is transitive.[27] He defines a set of things as a beta-type if, and only if, every member of the set is spanned by every member of the same B-type, and no member is spanned by any predicate outside of that B-type. As well, he defines a set of predicates as an A-type if, and only if, every member of the set spans every member of the same alpha-type and no member of the set spans a thing outside of that alpha-type. It should be clear now that Sommers' beta-type retains transitivity where we should expect it for the relation 'is the same type as'. Taking our pre-

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[27]Sommers, "Types and Ontology," p. 140.

vious example of Caesar and Russell and the industrial revolution, we see that Caesar and the industrial revolution or Russell and the industrial revolution are of different types on the criterion of beta-types, for they share only some predicates in common, but not all. Whereas with Russell's alpha-type, we considered that Caesar and the industrial revolution could be of the same type with respect to Q (is historically interesting). On Sommers' criterion we can never consider them to be of the same type. Conversely, with Sommers' criterion, we can consider Russell and Caesar to be of the same type because whatever predicate spans Russell also spans Caesar. Thus we have all the benefits of Russell's types without the difficulties that it can be shown to entail. Similarly, the A-type of Sommers can be shown to retain transitivity for the type relation. Returning to our previous example of the intransitive B-type, we can see that P (is a philosopher) and Q (is interesting) cannot be of the same type because Q spans things which P does not. What gave rise to the problem of transitivity for Russell's alpha-types and Ryle's B-types is that they define sets

which are so large that they include members which make it impossible for them to retain transitivity. This will become more evident in the following discussion, where we will view these type difficulties in the syntactical terms which Sommers has provided.

Before venturing into the syntactical analysis that we have mentioned, it is important to digress and make a clarificatory statement about the term 'spanning'. Failure to notice the distinction between spanning and predicating has given rise to a series of unjustified criticisms of Sommers' theory.[28] The error of these criticisms has been pointed out by Englebretsen, who demonstrates that a predicate may still span a subject while it would naturally be said to be impredicable of

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[28] L. R. Reinhardt, "Dualism and Categories," Proceedings of the Aristotelian Society 66 (1965-1966); Susan Haack, "Equivocacy: A Discussion of Sommers' Views," Analysis 28 (April, 1968); Hugh S. Chandler, "Persons and Predicability," Australasian Journal of Philosophy 46, No. 2 (August, 1968); R. van Straaten, "Sommers' Rule and Equivocity," Philosophical Studies 22 (1971).

that subject.[29] The following quotations from Englebretsen should suffice to clarify what Sommers is saying.

> The resulting sentence will seem odd, indeed it will be vacuous (like 'Socrates was in awe of Moses'), but it will not be a category mistake (like 'This theorem is triangular'). Van Straaten's mistake here is taking 'makes sense to predicate' in terms of predicability rather than spanning. The spanning notion is defined in terms of category correctness while the notion of predicability is defined in terms of the truth. Sommers clearly meant spanning when he used the 'makes sense to predicate' in the rule since the rule is intended as a test for theory coherency, an incoherent theory being one which allows 'category straddlers' into its ontology and thus category mistakes into its language.[30]

> A predicate will be said to span a thing if it is predicated truly or falsely but not category mistakenly. In effect, this says: A predicate P spans a thing a just in case Pa is not a category mistake. Notice that saying that Pa is not a category mistake does not entail that P is predicable of a. 'Was in awe of Moses' spans Socrates, since the statement that Socrates was in awe of Moses while vacuous is not category mistaken. The result is that spanning and predicability are not identical relations. If P is predicable of a then P spans a, the converse does not hold since there are vacuous statements (i.e., ones in which the predicate is impredicable of the subjects) which are not category mistakes. Predicability might be viewed as a special kind of spanning relation. P spans a just in case Pa is not a category mistake. P is predicable of a just in case Pa is not a category mistake and Pa is not vacuous.[31]

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[29] George Englebretsen, "On the Nature of Sommers' Rule," Mind 80 (1971); George Englebretsen, "Vacuosity," Mind 81 (1972); George Englebretsen, On van Straaten's Modification of Sommers' Rule," Philosophical Studies 23 (1972); George Englebretsen, "Brody on Sommers," Philosophical Studies 26 (1976).

[30] Englebretsen, "On van Straaten's Modification," p. 217.

[31] Englebretsen, "Vacuosity," p. 275.

> What Sommers unmistakably means is that any predicate and its 'negative' span exactly the same things.[32]

Returning again to Sommers and his earliest work, The Ordinary Language Tree, where he puts forward a tree theory of language which shows how we can construct a topography of predication, we encounter the notion of an U-relation, the basic notion to all of Sommers' work.

The only assumption necessary to Sommers is that to know the meaning of an expression is to know how to use it; in other words, to know how to construct a piece of significant (non-absurd) discourse using that expression. This assumption is of course not beyond challenge, but it may be pointed out that our concern is not with justifying this Wittgensteinian position, so much as with employing such a position in order to examine certain other philosophical problems. Whether some modification of the meaning-as-use thesis can be justified is a difficult problem itself, but tangential to the direct concern

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[32]Englebretsen, "On van Straaten's Modification," p. 218.

of this thesis.

We will say, then, that two expressions will have the sense value U, if they can be used in a subject-predicate sentence without creating nonsense. Thus, if two expressions, X and Y, have the sense value U, we will say that they are U-related.[33] We may state this succinctly as follows: Letting AxBx stand for a sentential function such as x is A or x is B, x is A and x is B, x is A implies x is B, etc. and letting Q stand for some quantifier, then Q(AxBx) is a sentence and its significance depends only on A and B. For example, if A = author, and B = book, then Q(AxBx) is a category mistake for it reads "x is an author and x is a book". On the other hand, if B = bold, then Q(AxBx) is significant, for it now reads "x is an author and x is bold".[34]

In order to forestall any confusions, it would be well to point out that Q(Ax implies Bx) is not logically the same as Q(Ax) implies Q(Bx). Using the same examples

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[33]Sommers, "The Ordinary Language Tree," p. 161.

[34]Ibid., p. 162.

as before, Q(Ax implies Bx) reads "there is at least one x such that if x is an author then that x is a book", while Q(Ax) implies Q(Bx) reads "if there is at least one x such that x is an author, then there is at least one x such that x is a book". The difference is that, in the former case, A and B are predicated of the same thing, and results in a category mistake, while in the second case, A and B are predicated of two separate entities and no category mistake results.

Sommers defines the sense relations U and N as follows:

$$Q(AxBx) \text{ is significant} = \begin{array}{l} U(AB) = U(BA) \text{ df.} \\ N(AB) = -U(AB) \text{ df.} \end{array}$$ [35]

This is a concise statement of what it is for two terms to be U-related. If Q(AxBx) is significant, then A and B are said to be U-related. Thus, for any subject-predicate sentence that significantly conjoins two terms without creating nonsense or category mistakes, those two terms may be said to be U-related. In our previous examples, the terms

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[35] Ibid., p. 163.

'author' and 'bold' are U-related, while the terms 'author' and 'book' are N-related. As may be seen from the definition, the N-relation is simply the denial of the U-relation. When two terms are such that there is no significant sentence in which one can occur as a subject and the other as a predicate, or no significant sentence in which both terms can be predicated of the same subject, then these two terms are N-related.

With this notion of an U-relation thus defined, we may now see more clearly the basic difficulty which Russell and Ryle encountered with their respective type definitions. Succinctly stated, their difficulty lay in treating the U-relation as a transitive relation. We can see that this relation is symmetrical and reflexive, but that it is transitive cannot be demonstrated. Indeed, counter-examples will show that it is sometimes transitive and sometimes non-transitive. Let us turn once again to Russell's alpha-type, that is, two things are of the same type (U-related) with respect to a certain predicate P, if P is significantly predicable of (spans) both things (if P is U-related of both

things).. Symbolically as follows: U(XY) & U(XZ) implies U(YZ). For example: Given that the relation, 'is the same type as' is a transitive relation, we should, with Russell's type theory, expect the following:

> U(Russell, philosopher) & U(Caesar, philosopher) implies U(Russell, Caesar).

In this case, the consequent U-relation makes sense when the transitivity principle is applied; but with equal ease we can construct a case using alpha-types in which the consequence of adhering to transitivity for the relation, 'is the same type as', yields a situation which is obvious nonsense. For example:

> U(Russell, interesting) & U(continuity, interesting) should imply U(Russell, continuity).

In this case, if all alpha-types were transitive for the type relation, we should expect, according to the transitivity principle, the sense relation U(Russell, continuity). However, in actual language, we adhere to the sense relation N(Russell, continuity) because the sentences, 'Russell is a continuity' and 'continuity is Russell' are category mistakes. The same may be demonstrated for B-types (Ryle's notion) when the B-type is expressed in terms of U-relation.

For example:

U(philosopher, Russell) & U(man, Russell) implies U(man, philosopher)

U(stormy, cape) & U(loose at the shoulders, cape) should imply U(stormy, loose at the shoulders)*

But, in fact, the sense relation for 'stormy', and 'loose at the shoulders' is N. _Again, in the third example, the type relation is transitive, for 'man' and 'philosopher' are U-related, but in the fourth example we can see that the type relation for Ryle's B-types is non-transitive, for we have, in fact, N(stormy, loose at the shoulders), when we should expect U(stormy, loose at the shoulders). But our criterion of category correctness shows us that 'stormy' and 'loose at the shoulders', when put into a subject predicate sentence, creates a piece of absurd discourse.

Using the U-relation, and keeping in mind these examples, we can show very clearly the essence of Black's criticism as it applies to Ryle and Russell, and the three alternatives which were left open by this criticism. Of these three alternatives we will have more to say, for we will see that only Sommers' alternative, which we might

call the fourth, is viable.

Rejecting the Transitivity Rule

Black had originally challenged Russell's definition of a type (the alpha-type) on the grounds that the relation, 'is the same type as' should be transitive, as are all equivalence relations.[36] We also maintain, in the spirit of Black, that the relation 'is syntactically similar' should also be transitive. Black has demonstrated, as we have discussed, that a parallel dissolution of types occurs in the case of terms as well as of things. Black sees the only way to salvage some usefulness from Russell's theory of types is to "interpret the theory of types negatively as essentially an instrument for establishing differences of type".[37] Sommers refers to Black's negative criterion as the "Transitivity Rule".[38] It follows directly from Russell's theory of types. For Russell, if a term A is syntactically similar to a term C, and another term B is syntactically similar to the term C, then A is syntact-

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[36]Black, p. 235. [37]Ibid., p. 238

[38]Sommers, "Types and Ontology," pp. 145, 152.

ically similar to the term B. This then leads to the paradox of dissolution of types. Black's proposal to interpret the theory of types as an instrument to determine type difference has the inverse problem. Black's new procedure is this:

> ...two typographically distinct words are syntactically dissimilar if there is at least one context in which one cannot be substituted for the other without generating nonsense. To this is added the further condition that corresponding elements of contexts capable of receiving syntactically dissimilar words are themselves to be regarded (independently of typographical similarity) as syntactically dissimilar.[39]

What this says is that if a term A is syntactically similar to a term C and the term A is syntactically dissimilar to a term B, then the terms B and C are syntactically dissimilar. Thus we have a case with at least one instance in which A cannot be substituted for B without generating nonsense. Therefore, the corresponding elements of contexts capable of receiving syntactically dissimilar words are themselves to be regarded as syntactically dissimilar. The implication of this is that all heterotypical predication is equivocal predication. To clarify this, let A ≠

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[39]Black, p. 238.

Russell, B = continuity, and C = is thought about. Using Sommers' terminology, we may represent Russell's thesis as follows:

(U(AC) & U(BC)) implies U(AB), that 'Russell' and 'continuity' are syntactically similar.

by exportation
U(AC) implies (U(BC) implies U(AB))

by substituting -N for U, as defined by Sommers,
U(AC) implies (-N(BC) implies -N(AB))

by contraposition,
U(AC) implies (N(AB) implies N(BC))

by importation
(U(AC) & N(AB)) implies N(BC).

Here we have one case where A cannot be substituted for B, that is, A and B are syntactically dissimilar, and thus enforcing a dissimilarity on B and C, that 'continuity' and 'is thought about' are syntactically dissimilar. On Russell's thesis, the terms 'Russell' and 'continuity' are syntactically similar, although we would like to say that they are not, while with Black's thesis the inverse problem occurs, that 'is thought about' and 'continuity' are syntactically dissimilar, although we would like to say that they are not.

Now, it is apparent that there are cases where

Russell's position indicates syntactical similarity where we would indeed expect to find it, as with terms, 'Russell', 'Caligula', and 'is a philosopher'. As well, there are cases where Black's Transitivity Rule indicates syntactical dissimilarity where we would expect to find it, as with the terms 'Russell', 'prime number', and 'is a philosopher'. But the essential point has been missed if we are content with the situation as it rests. That Russell's and Black's theses work in some cases, but not in all cases, shows that the relations 'is the same type as' and 'is syntactically similar' are not uniformly transitive when applied to Russell's theory of types. What is required is a definition of types which is always transitive for these type relations. With Russell and Black, we are forced either to assert type distinctions where we would like not to, or deny type distinctions where we would like not to.

These same arguments apply to Ryle's B-types as well. Black's position denies that a triad of terms with the sense values U,N,U can occur. Recall that the Trans-

itivity Rule states that (U(AC) & N(AB)) implies N(BC), that is, given a triad of terms with the sense values U and N, the third sense value must be N as well. Let us take the following triad of terms: A = the smallest prime number, C = is less than 10, and B = is coloured. In this case, substituting our values into the Transitivity Rule, we get U(smallest prime number, less than ten) and N(smallest prime number, coloured) implies that N(less than 10, coloured). Ryles's B-type works in this case, for, in fact, it is a category mistake to say that numbers less than 10 are coloured. On the other hand, if A = Russell, B = is a theorem, and C = is interesting, we get U(Russell, interesting) and N(Russell, theorem) implying that N(interesting, theorem). Thus, using Ryle's B-type, if we are to maintain transitivity for the type relation, we are forced to assert that interesting theorems are category-mistaken terms, and that such a predication is a category mistake.

Once again we are forced to maintain syntactical dissimilarity where we would not wish to when considering how we normally go about using language. This demonstrates

the equal inadequacy of Ryle's B-types.

Sommers sketches the bankruptcy of type theory as it resulted from Black's criticism of Russell.

> In any case we have before us three alternatives: (1) Use the transitivity rule 'on occasion', for example, in accounting for obvious zeugmas. (2) accept transitivity and face the 'unwelcome consequences' of generating ambiguity in counter-intuitive instances. (3) Reject transitivity and face the consequences of being unable to account even for obvious zeugmas. The first way is adopted by those who despair of the second two formalistic alternatives. Black and Ryle are its representatives. The formalist must reject it or surrender to Black's criticism. It is interesting that Russell, like Ryle, stoutly maintains that existence is equivocal. And of course he is forced to say this if he accepts transitivity in the formal spirit. On the other hand, any formalistic philosopher who maintains that existence is univocal is forced to accept the third alternative. A striking and belligerent case is Quine.[40]

As we have already remarked at an earlier stage in this thesis, Quine rejects the argument that 'exists' is equivocal, saying that there can be no evidence for holding it to be equivocal. Now we can see why Quine drew this conclusion, for he had only the Transitivity Rule which enforces ambiguity where we do not want it. Thus he also had

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[40] Sommers, "Types and Ontology," p. 151.

to reject the only consistent means which he had at hand to force ambiguity on the predicate 'hard', and for this reason Quine took what we originally suggested to be a very counter-intuitive position on predicates like 'hard'.

To recapitulate briefly, let us look at the progress we have made with Sommers' analysis. We have most importantly defined the U-relation and the N-relation. We have also examined Russell's type criterion, and Ryle's type criterion, and Black's criticism using the Transitivity Rule. What we have yet to do is to show how Sommers rejects the Transitivity Rule, to show Sommers' criterion for type difference, and to show the Rule for Enforcing Ambiguity that Sommers has developed.

To begin, then, we shall give in point form Sommers' proof that the Transitivity Rule must be rejected. It is done on the grounds that the Transitivity Rule implies a language incapable of any type distinctions. We must remember, as a point of clarification, that the Transitivity Rule and Russell's theory of types are logi-

cally equivalent, as we have already shown. When interpreted, as Black did, to show type difference, it is incapable of allowing type similarity, and interpreted to show type similarity, as Russell did, it is incapable of any type distinctions.

Proof: Let T be some term in language L.

1.1 If T is part of L, then T has some use in L.

1.2 If every sentence using T in L were a category mistake, then T would have no use in L (i.e. no meaning in L).

1.3 It is therefore a necessary condition that T be U-related to at least one term in L. Call this the use condition.

Let NL be a model language (natural language) with the terms A, B, C, ...K.

2.1 Any pair of these terms will have the sense relation U or N depending whether they are U-related or not. Since this is a natural language, some of the terms will have the sense relation N.

2.2 Every term of NL must occur at least once in the language with another term such as to have the sense value U (1.3 above).

2.3 Suppose in NL that the 'use condition' (1.3) is met with the following values of the terms of NL, all other values being N;
U(AB), U(AC), U(CD), U(EF), U(EG), U(EH), U(EI), U(EJ), U(EK).
The use condition is therefore met for every term, A, B, C, ...K in NL.

3.1 But, none of the terms A, B, C, D, has any connection with any of the terms E, F, G, H, I, J, K.

4.1 Therefore, the use condition is insufficient, for we have no grounds for considering A, B, C, D, to be in the same language as E, F, G, H, I, J, K. We might as easily consider them two

separate languages.

5.1 For a set of terms to be in the same language, it is necessary that they be connected through mutual use with one another. This does not mean they all must be mutually U-related, for they may be connected indirectly. For example, if B and C have the value N, they are still considered connected if there is some third term A, such that U(AB) and U(AC).

5.2 U(XY) & U(XZ) implies con(YZ), i.e., that Y and Z are connected.

5.3 con(YZ) & con(WZ) implies con(YW).

6.1 Returning to our NL in 2.3, if we add the value U(BJ), every term becomes connected with every other term.

6.2 Therefore, no language is a language unless it satisfies the use condition (1.3) and the connectedness condition (5.2 and 5.3).

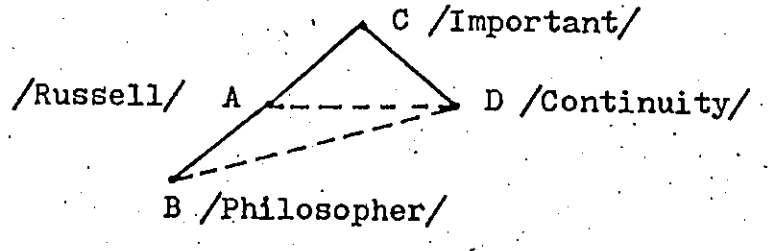
7.1 Type similarity is transitive, that is, U(XY) & U(XZ) implies U(YZ).

Let 7.1 be assumed correct. If any language is connected (and this is a necessary condition for being a language), then 7.1 would enable us to prove every term to be U-related.

8.1 Suppose our NL has only four terms, A, B, C, and D, with the following values: U(AB), U(AC), U(BC), U(CD), N(AD), and N(BD). The conditions for use and connectedness are satisfied.[41]

[41] The situation described in 8.1 can easily be supplied with examples. Let A = Russell, B = Philosopher, C = Important, and D = Continuity, then

U(AB) = Russell is a philosopher.
U(AC) = Russell is important.
U(BC) = The philosopher is important.
U(CD) = Continuity is important.
N(AD) = Continuity is Russell.
N(BD) = Continuity is a philosopher.



8.2 But using 7.1, we can show, since U(AC) and U(CD), therefore U(AD), and since U(AD) and U(AB), therefore U(BD). The use of the Transitivity Rule (7.1) forces all possible terms in any connected language to be U-related. This means that there can be no type mistakes, hence no type distinctions. The meanings of the sense values U and N are obliterated.

9.1 Therefore, the Transitivity Rule cannot be a possible rule for natural languages, and thus cannot be used to enforce distinctions of sense.[42]

The foregoing proof has a very clarifying effect upon the type theories of Russell and Ryle. Russell's alpha-type should be transitive for the relation 'is the same type as', but the transitivity of the alpha-type implies that all of the terms be mutually U-related. For Russell, a and b are of the same type if P is significantly predicable of both. In terms of the U-relation, U(XY) & U(XZ) implies U(YZ). Ryle's B-type implies transitivity as well. If P and Q are two predicates significantly predicable of some thing t, then P and Q are of the same type, and the sentence (PQ) is not a category mistake. Thus, for both alpha-types and B-types, we find that if transitivity is consistently maintained, all of the terms of the language

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[42]Sommers, "Types and Ontology," pp. 153-155.

become mutually U-related, and all of the type distinctions disappear. Sommers' types, on the other hand, are such that they can remain transitive but do not force all of the terms of the language to be mutually U-related, because Sommers' types are not synonymous with the definition of the U-relation. The difference between Sommers' A-type and Ryle's B-type can be shown again by taking any two terms X and Y. The B-type states that U(XY) is equivalent to saying that X and Y are of the same B-type. But the A-type does not entail that if U(XY), then X and Y are of the same A-type, for there may be a third term Z, such that U(XZ) and N(YZ) and N(YZ) or U(YZ) and N(XZ). If so, the use of X will not be the same as Y.[43]

From the foregoing analysis, we can trace through Sommers' criterion of type difference and arrive at a formulation for the Rule for Enforcing Ambiguity , which is perhaps Sommers' most powerful philosophical tool. With it we can test a theory for coherency. From the definition of an A-type, we can see that two terms X and Y may be U-

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[43]Ibid., p. 147.

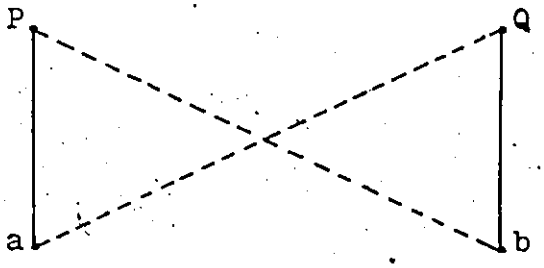
related without being of the same type. What permits us to say so is the introduction of a third term. The Transitivity Rule, used with either alpha-types or B-types, leads to Black's criterion for type difference, U(XY) & N(XZ) implies N(YZ). Black uses Russell's theory as a negative criterion for distinguishing type difference. But we have already rejected the Transitivity Rule. From Sommers' A-types we see that the use of X and the use of Y must be identical (they must span the same alpha-type) in order for them to be of the same A-type. If they are not of the same A-type, it is because X spans some thing which Y does not, or vice-versa. Similarly, two things are of the same beta-type only if they are spanned by the same predicates, and there is no predicate which spans one but does not span the other. Let us recall Quine on chairs and questions to exemplify this point. Chairs and questions must be of different beta-types because they are not spanned by every member of the same B-type. The predicate 'is sat upon' is of the B-type which spans chairs, and the predicate 'is asked' is of the B-type which spans questions. But neither predicate spans both chairs and questions. Thus, chairs and questions are of different types despite both being

spanned by 'hard'. From this we derive Sommers' criterion of type difference.

> Two things are of different types if, and only if, there are two predicates P and Q, such that it makes sense to predicate P of the first thing but not the second, and it makes sense to predicate Q of the second thing but not of the first.[44]

Taking any two things a and b and two predicates P and Q such that P spans a but not b, and Q spans b but not a, then we may conclude that a and b are different types. With a diagram we can show this relationship, the solid line representing the U-relation and the broken line the N-relation.

I.



U(Pa)
U(Qb)
N(Pb)
N(Qa)

Let us now suppose that there is some third thing c such that P spans c and Q spans c. We will show this similarly.

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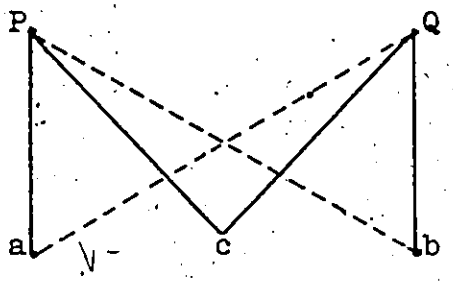
[44] Sommers, "Predicability," p. 265.

II.



U(Pa)
U(Pc)
U(Qb)
U(Qc)
N(Pb)
N(Qa)

We now have the following situation: Q is predicable of b and c but not a, and P is predicable of a and c but not b. Let us look at what conclusions may be drawn. The above diagram is a schematic representation of a situation which violates Sommers' Rule for Enforcing Ambiguity. If we can demonstrate that such a situation as the above cannot exist, then we have given a sufficient grounding for the use of this rule to enforce ambiguity. At the beginning of our section on Sommers' work, we mentioned and briefly characterized what were called 'higher' predicates. Now we will give Sommers' precise definition.

> We may define as higher than B and C, a predicate A, which appears as the expression common to the U-pairs in a triad of expression pairs which have the values of U, U, and N. Thus a is higher than B and C in the triad U(AB) U(AC) N(BC)....Being higher than another expression means no more than occurring

as the expression A in such triads of data sentences as: (AB) (AC) -(BC) : (BA) (CA) -(BC) : (AB) (CA) -(CB) etc.
In other words (A is greater than C) and (A is greater than B) is equivalent to U(AB) U(AC) N(BC) df.[45]

Sometimes we may find a higher term to be equivocal, as with hard chairs and hard questions, and sometimes univocal, as with hour long lectures and hour long toothaches, though more correctly, we will say that Sommers' rule will give us grounds for finding some higher terms univocal and some equivocal. Returning to our diagram (II), we will make full use of our definition of 'higher terms'. Obviously, we cannot say that any given term A is higher than B and C, then turn about and say that B or C is higher than A. This not only violates Sommers' test for theory coherency, but is contradictory as well. Looking at our diagram (II), we can now locate just this incoherent situation. For we have U(Pa) and U(Pc) showing that P is higher than a and c, and then we have U(Pc) and U(Qc) showing that c is higher than P and Q. Conversely, we

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[45]Sommers, "The Ordinary Language Tree," p. 172.

have U(Qc) and U(Qb) showing that Q is higher than c and b, and U(Pc) and U(Qc) making c higher than Q. Thus any theory which permits the construction of a diagram like II is incoherent. This is Sommers' Rule For Enforcing Ambiguity.

> If a, b, and c, are any three things and P and Q are predicates, such that it makes sense to predicate P of a and P of b, but not P of c, and it makes sense to predicate Q of b and Q of c, but not Q of a, then P must be equivocal over a and b or Q must be equivocal over b and c. Conversely, if P and Q are univocal predicates, then there can be no three things a, b, and c, such that P applies to a and b, but not to c, while Q applies to b and c, but not to a.[46]

To return at last to Quine's analogy that we discussed earlier, we see that we can now take 'exists' to be unambiguous and univocal without committing ourselves to holding 'hard' to be univocal over chairs and questions or holding chairs and questions to be of the same ontological types. Conversely, we may hold 'hard' to be equivocal over chairs and questions without taking 'exists' to be likewise equivocal in spite of its being predicable

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[46] Sommers, "Predicability," p. 263.

of two distinct ontological types of things.

Of the most importance is the observation that there are no two predicates P and Q (if one of which, say P, is 'exists') and no three things, a, b, and c, such that Pa and Pb but not Pc, and such that Qb and Qc but not Qa, for we have already shown that there is no thing x such that we may not say of it that it exists (Px) or that it does not exist -(Px). In order to enforce ambiguity on any predicate, we must find that there can be at least three things such that P (in this case 'exists') can be predicated of two of them, but not the third. This makes it impossible to enforce ambiguity on 'exists'. On the other hand, those philosophers who would like to maintain that there is more than one sense of 'exists' will be caught in a circular argument if they attempt to offer any criterion for their views. By Sommers' rule, they must already presuppose that 'exists' is equivocal in order to meet the requirements for enforcing ambiguity, that there are two predicates, one of them being 'exists', and there are three things such that

it makes sense that 'exists' be predicable of two of them but not the third. We have already shown that this cannot be the case, and unless they can counter this argument, they cannot show 'exists' to be equivocal. The only possible way to do this is to presuppose that 'exists' is equivocal, the very thing that they would wish to demonstrate. Remember, too, that Quine has shown that there is no good reason for even making this assumption, as the question of the spatio-temporality of objects does not reside in the term 'exists', but in the objects themselves.[47]

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[47] Quine, "Notes on Existence and Necessity," p. 116.

CHAPTER III

THE CATEGORY OF 'EXISTENCE'

It may be recalled from our previous chapter that when we talked of the significant predication of a given predicate, 'P', we construed 'P' as having no sign for the purposes of our analysis. To briefly recapitulate, this means that if a predicate is significantly predicable of a given subject, it is predicable truly or falsely, but not absurdly, of that subject. This gives rise to an important and powerful distinction; the distinction between an ontological class or category and the ordinary notion of a class in elementary intuitive set theory.[48] Sommers is instrumental in formulating this distinction, in employing it, and in sketching it applicability to the main problem being dealt with in this thesis, that is, the confusions we encounter with the word 'exists'.

Once again employing the notions of "absolute

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[48]Sommers, "Types and Ontology," p. 160.

predicate" and of "spanning", we recall that an absolute predicate, represented by the symbol /P/, spans all of those things which are either p or non-p. Let us look at a simple monadic predicate like 'is wise'. The following sentences are all significant, though they may not all be true; 'Socrates is wise', 'Nixon is wise', 'Polonius is wise', 'Protagoras is wise'. Now, compare these sentences with the following sentences: 'Water is wise', 'Pink copulas are wise', 'Triangularity is wise'. These two groups of sentences demonstrate the distinction that Sommers wishes to make. In one case we may agree that 'Socrates is wise' is probably true, that 'Polonius is wise' is probably false, and that 'Nixon is wise' might be doubtful. However, we have no difficulty in understanding these sentences or in arriving at the conclusion that a possible truth value could be assigned. In the second case, the problem takes a fanciful twist. For we have examples of things to which the predicate 'is wise' does not apply. It makes little sense to conceive of ourselves arguing heatedly over the assertion that pink copulas are wise, and whether this assertion is true or false.

"Is it true that pink copulas are wise?"

"No, I believe that cannot be the case."

"Then pink copulas are stupid."

"Yes, a pink copula gave me some very bad investment advice yesterday."

Clearly, the foregoing conversation illustrates the need for delineating significant predications from those that are nonsensical. There are certain types of things of which it does not make sense to say that they are either wise or stupid.

Let us look at another example, a typical colour predicate like 'green'. 'Green', when considered in a class sense, defines a specific class, the extension of which is the set of all and only those things that are green. The legitimate complement of the set of green things is the set of non-green things, the extension of which is the set of every other coloured, but not coloured green, thing. This is very important. The absolute predicate, '/Green/', defines the union of the two sets. According to the sign of the predicate 'green', 'green' defines the set of green things, and 'non-green' defines the set of non-green things, its complement. Look at the following

sentences: 'Miles are green', 'Circularity is green', 'A valid argument is green'. It might be held that these predications are false, but, in fact, they are not false, they are category incorrect.

A point that has not been clearly brought out at this stage is that there are certain conditions that a sentence must meet in order to be true or false. First, it must conform grammatically. A string of words that is not grammatically well formed cannot be true or false. Secondly, a sentence must be significant, or free from category mistakes. Thirdly, a sentence must be logically correct, that is, it must not involve contradictions or internal inconsistencies. It is only at the fourth level of rectitude, that of truth, that we can consider a sentence true or false. Logic is capable of only three levels of rectitude, and it is for this reason that nonsense or category mistaken sentences have not been clearly dealt with by those who use only logic. As logic deals with sentences only in a formal way, without reference to content, category mistakes cannot be weeded out. Yet, the

correctness of a sentence at any level must presuppose the correctness of that sentence at each of the preceding levels.[49] Thus, it is clear that truth or falsity cannot come under consideration until the sentence satisfies the dictates of grammar, significance, and logic. Only then may we say that a sentence is true or false.

To return to our above example, 'Circularity is green', we know that to negate a false sentence is to derive a true sentence, yet, the negation of our example makes no more sense than the sentence itself. Circularity is neither green nor red nor yellow. If we adopt a Russellian attitude toward a sentence like 'Circularity is green', we conclude that, since it does not make sense, it is false. Russell does not want to say, on the other hand, that the denial of this sentence is true, so he advocates that the negation must be placed before the whole of the sentence and not just part of it. But this is to confuse the class notion with that of an ontological category.

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[49] Sommers, "The Ordinary Language Tree," p. 161.

Russell is attempting to deal with the problem of nonsense at the level of truth, whereas, in fact, it must be dealt with at the level of significance, where the sign of the term or terms is not an issue. Classes have complements, ontological categories do not.[50] Russell would say that the sentence 'Circularity is green' is false. But if 'Circularity is green' is false, then something of the form 'Circularity is C' is true, where C represents some colour predicate. Now, once we have meticulously substituted all possible colour predicates for C, and examined all of the resulting sentences, we find that they, too, are all as incorrect as the original sentence. There is, in fact, no colour predicate which we could substitute for green which would make this predication true. The situation that Russell's position is incapable of distinguishing is that we are confronted with a dual sense of what it is to deny a predication. By denying that circularity is green, we are stating one of two things, that circularity is coloured but not coloured

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[50]Sommers, "Types and Ontology," p. 161.

green, or, that circularity is not the type of thing that is coloured at all, that is, that the terms 'circularity' and 'green' are N-related.

There is a close parallel between the above situation and the problem of zeugmas confronted by Ryle. As we have already shown, Russell's type theory forces ambiguity where we do not always want it, and Ryle's forces ambiguity where we already know it to be. The essentially important cases, those where we are in doubt, as with 'existence', are left completely without a criterion upon which to base a decision. Now, with Sommers' distinction between ontological category and the ordinary class notion, when we are faced with a situation wherein we have a denial of predication, if both the denial and the affirmation of the predication fail to make any sense, we are able to perceive that we are no longer dealing with classes, but with ontological categories. Thus, the denial of the sentence at hand is not a negation in the logical sense, but is indeed an assertion that A is not the type of thing which is predicable of B. In other words, the two terms,

A and B, are N-related.

The veracity of a predication at the class level is determined by empirical considerations, while at the level of ontological categories, the significance is based upon the relationship of the terms involved.[51]

The predicate 'green' defines the class of green things. If we take the denial of the attribution of the predicate 'green', we are asserting that the subject is not green, but we are not asserting that the subject is not coloured, for the legitimate complement of the class of green things is the class of non-green coloured things, for example, yellow things, blue things, red things. The union of a set with its complement for a given predicate is the universe of discourse for that predicate. In other words, green U non-green = V, the set of coloured things. The predicate with its complement is the absolute predicate, the case in hand being the absolute predicate

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[51]Cf. the definition of the U-relation.

'/Green/'. '/Green/' is an ontological category.[52] An ontological category is called ontological in that it delineates a definite interrelationship of the individuals of that category, and that a certain uniqueness is specified by that category, in contra-distinction to an ordinary set or class which does not necessarily specify any uniqueness or indicate any interrelationship. Shoes, ships, sealing wax, cabbages, kings and contradictions may be a set by definition, but never an ontological category. This uniqueness which is specified by an ontological category is called a feature by Sommers.[53] The unique feature of the category of the absolute predicate '/Green/' is that of being coloured, not that of being green. There are several types of things which are not possessed of this feature, such as states of consciousness, anxiety, valid arguments, degrees, tantrums, curses, to name a few. The predicate 'green' says which things are green; the absolute predicate '/Green/' says which things are coloured. In passing, it is interesting to note that the extensions of

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[52]Sommers, "Types and Ontology," p. 161.

[53]Ibid., p. 161.

the absolute predicates '/Red/', '/Blue/', '/Yellow/', etc., are all the same, that is, the set of coloured things, (/Red/ = R. U -R = G U -G = /Green/).

To say that 'Circularity is green' is false, and to assert that its negation is also false is to be using 'green' in a categorically incorrect manner, that is to commit a category mistake. To say that circularity is not green is not to deny a predication in the class sense, in the sense in which one would say that one's shoes are not green, it is to assert that 'green' and 'circularity' are mutually exclusive terms in the language. To deny that these terms are mutually exclusive is to violate Sommers' type definitions and suggest that 'green' is being used in some hitherto unknown and equivocal fashion. Here again, let us be reminded that 'green with envy' and 'in a blue mood' are not literal predications. They are on par with poetry, if only bad poetry, and thus do not concern Sommers and have no bearing on the issue at hand.[54]

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[54] In both the examples below, we have a situation that violates Sommers' Rule For Enforcing Ambiguity, thus indicating some inconsistency. We have already outlined

The bearing that the above analysis has upon the question of existence is explicitly stated by Sommers.

> There are quite a few words which can be taken either in their absolute sense as category words or in their class sense. Thus 'exists' if taken as a category word has no opposite. 'Exists' then is the same as /exists/. The confusions from the discussion in Plato's Sophist to this day over the use of 'exists' as a category or a class word are dispelled once we take care to keep the absolute or categorical meaning of 'exists' separate from its ordinary predicate meaning. The class of things which do not exist belong to the category of existence. Flute-playing centaurs belong to the former by virtue of the fact that they belong to the latter.

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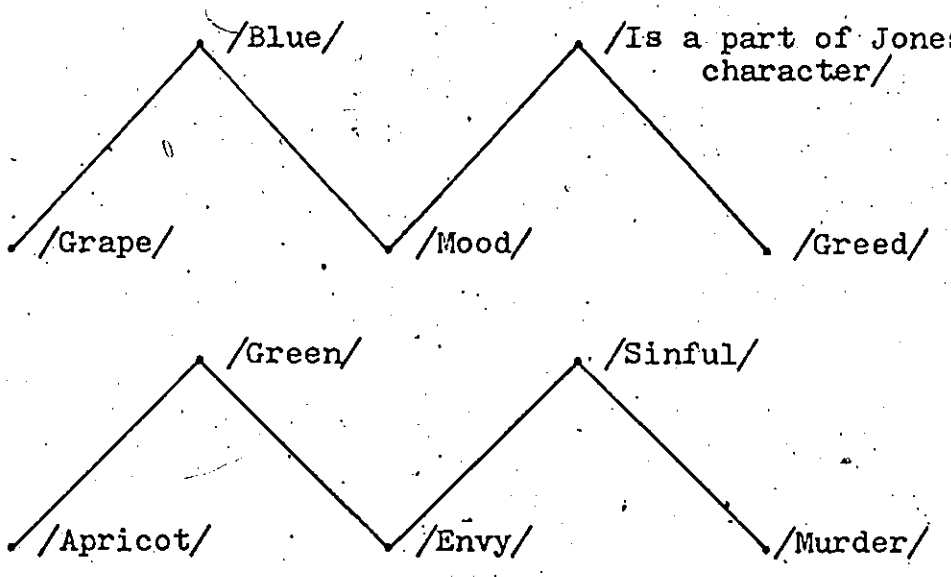
the alternatives that correct this situation, and we have only to choose that one which best accords with our current usage in language. Making the colour predicates equivocal appears to be the intuitively correct choice, otherwise we must take the literal view and assert that envy and moods are in fact coloured. To take this literal and univocal interpretation of the predications is to assert that a mood may radiate electromagnetic emanations of the same frequency as a ripe grape, or some similar discourse.



> I could call a horse a flute-playing centaur and I would be mistaken since there are no flute-playing centaurs, but in this respect I am at least mistaken, something I would not be if I called a horse a prime number. The class of things that do not exist is limited to what we can mistakenly say does exist. But in saying that I predicate nothing of horses, I merely say that the category of existence is the ontology of the language as given by the absolute predicates of the language. 'A horse which is a prime number' is not in the language, and neither is 'round anger'. Predicates that are not in the language cannot be used to say anything and we must perforce be 'silent'. The absolute predicate '/is spoken of/' defines the category of things that can be spoken of, a category that is co-extensive with that of existence. But 'cannot be spoken of', like 'inexistent', is an illegitimate complement to an absolute predicate. Ramsay's remark that you can't whistle it either is the satirical remark of a discerning ontologist.[55]

At this stage, it must be kept in mind that the truth and falsehood of a sentence are empirical questions, while significance is a linguistic consideration. Since Russell, philosophers have leaned toward the view that we cannot refer meaningfully to what does not exist. However rigorous this view appears at first sight, it is frought with difficulties. We do in fact refer regularly to entities which do not have any physical manifestations in the material

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[55]Sommers, "Types and Ontology," p. 161.

world. Indeed, the question of the existence of such objects rarely arises at this initial point of reference. It is perfectly good sense to assert that unicorns have four feet and one horn. If one were to argue that all unicorns have two feet and three horns, he would quickly be accused of not knowing what a unicorn was. Similarly, that Pegasus has four feet and two wings, that a foot comprises twelve inches, that this board is two feet longer than that board, that ideal squares have perfect ninety degree angles, are all significant and understandable references. Yet, none of these entities, unicorns, Pegasus, feet, inches, ideal squares, or degrees, refers to any object in the same way that Sam Jones refers to a certain person. Nonetheless, we always, even as philosophers, continue to refer to these objects, and speak as if these words referred to entities. Quine is much closer to the correct solution than he perhaps realizes with his suggestion that there are different types of things.[56] What we are suggesting is that our ontology contains various

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[56]Quine, Word and Object, p. 130.

types of things, not all of which are familiar material objects.

Further philosophical implications of this distinction between the class sense of a term and its category sense are both profound and far reaching. The twisted logic of that Quinean fictitious philosopher Wyman is clearly shown up as a failure to perceive this distinction. Failure to enforce this distinction is also in evidence in the old platonistic ploy of creating an existence-subsistence dichotomy, in the manner of Russell, for example.[57] Morton White gives a convincing analysis of Russell's duovocalism by arguing that Russell clearly uses the predicate 'is something' univocally over concrete objects and relations, then divides the category delineated by what it is to be something into that which exists in space and time and that which exists outside space and time (subsists).[58] White suggests that Russell treats existence

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[57]Russell, The Problems of Philosophy, (London, Oxford, New York: Oxford University Press, 1971), p. 57.

[58]Morton White, Toward Reunion in Philosophy, (Cambridge: Harvard University Press, 1956), p. 66.

and subsistence as two species of the genus 'is something', much in the same way as we would consider man and woman as two species of the genus man. He demonstrates this schematically as follows:

	I(White)	II(Russell)	III(analogy)
Genus:	Existence	Is something	Man
Species:	(A) Exists in space and time	(A) Exists	(A) Man
	(B) Exists out of space and time	(B) Subsists	(B) Woman

White shows, without having Sommers' distinctions as a tool, that Russell's use of the predicate 'is something' is tantamount to the use of 'exists' in the category sense, while Russell's use of 'exists' is use in its class sense. Force is lent to White's criticism and the misunderstandings of Russell's position are dispelled when we look at Sommers' analysis in a similar schematic fashion:

Exists - category sense, no complement

(A) exists - class sense

(B) does not exist - class sense

Keeping in mind that 'exists' in the category sense can

have no legitimate complement, for it is the absolute predicate '/Exists/', we can see Russell's confusion. Russell uses the predicate 'is something' in the genus sense, and this genus is made up of those things that exist in space and time and those things that do not exist in space and time, that is, those things that subsist. Sommers has shown that 'exists' (in the class sense) and 'does not exist' (in the class sense) are legitimate complements, while 'exists' in the category sense has no legitimate complement. Things are mistakenly said to exist or the sentences are category mistakes.

This casts considerable light on another famous Russell problem, that of 'the golden mountain'.[59] Russell was very adamant in maintaining that unreal objects should exist no more in logic than they do in zoology, geology, or any natural science. But Russell misses the essential point here by failing to distinguish rigorously the significant conjunction of terms from their nonsensical conjunction. That there is no golden mountain for the

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[59]Bertrand Russell, Introduction to Mathematical Philosophy, The Muirhead Library of Philosophy, (London: George Allen and Unwin Ltd., 1919) p. 169.

description 'golden mountain' to refer to is not precisely the crucial issue. For the colour predicate 'golden', or the material predicate 'golden' (depending on how one interprets 'golden'), is significantly predicable of the material object mountain. That a golden mountain is a geological and empirical falsehood has no bearing on the relationship of the terms 'golden' and 'mountain'. The existential fact of a golden mountain has bearing only on the truth of the sentence, not its significance. If a person asserts that the surface temperature of the sun is twenty-five degrees Celsius, the assertion is merely false. Existential mistakes are not to be confused with ontological mistakes, for the former show up in language as false sentences, while the latter show up as category mistakes. Failure to distinguish between the categorical sense of existence and the class sense of existence leads to the gratuitous grouping of insignificant predications with significant but false predications. As the course of this thesis has attempted to show, this fault is implicit in the positions of both Russell and Quine.

If the sentence 'Purple anger does not exist' is

treated as significant in the class sense of existence, then the simple sentences 'anger is purple' and 'anger is not purple' are also significant, one being true and one being false. Since significant predication, not veracity, delineates the bounds of our ontology, purple anger exists in our ontology. Neither Russell nor Quine would want to admit this, but it is a conclusion inherent in any theory that takes as false sentences that are in fact nonsense. If a philosopher wants to construct a one-to-one correspondence between things that exist and things in our ontology, as Quine does, and as do most nominalists, he must then solve all of the translation problems, and render all references to objects not in our physical world ontologically innocuous. Sommers' program is much less ambitious. Sommers wants to show that there is a one-to-one correspondence between the types of things in the world and the types of things we would permit in our ontology. Thus golden mountains are in our ontology because they are the types of things that could exist in the world. That the terms 'golden' and 'mountain' are U-related only bears out this point.

Indeed, the similarity of Sommers' distinction between ontological commitment and existential commitment echoes Meinong's theory of objects, as Englebretsen suggests.

> If Meinong's notion of 'can be meaningfully referred to' is Sommers' notion of 'can be talked about category correctly', then both theories are saying that the question of existence, if it gets asked at all, gets asked sometime after the entity has been successfully (meaningfully, significantly, category correctly) referred to.[60]

Thus, if we understand and employ Sommers' distinction, terms in the language refer, and what they refer to may be correctly said to exist or mistakenly said to exist. Of terms which are not in the language, we may say that the objects they purport to denote cannot exist, remembering by this that we "predicate nothing" of these objects. Our claim is that these objects do not belong to the category of existence, neither by virtue of existing nor by virtue of not existing. Nonsense cannot denote:

With Sommers, we can shed considerable light on the

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[60]Englebretsen, "Meinong on Existence," Man and World 6 (February, 1973): pp. 80-82.

difficulties that Quine claims to have with his fictitious friend Wyman. Quine can legitimately say that Pegasus does not exist without embroiling himself in the referential difficulties he discusses, or in the existential considerations relating to pink copulas. The question of Pegasus' existence is an empirical consideration, while the question of pink copulas is a linguistic consideration. To assume that Sommers' work settles the issues of realism and nominalism would be imprudent, yet it goes without saying that an area of this debate is simplified, and that a number of entities are taken out of the focus of the debate. The difficulties of denying the existence of flute-playing centaurs, fictitious characters, mythological kings, and their like are resolved by an understanding of the class sense of 'exists'. These are of the category of existence by virtue of belonging to the class of non-existent things. On the other hand, the difficulties inherent in raising the question of existence for category mistaken entities such as pink copulas, round angers, purple integers, and the like are solved by an understanding of the category sense of 'exists'. Such entities as

these are not even to be considered in the category of existence, and a denial of their existence is to say just that. These are not significant terms in the language and these entities are not in the ontology of the language.

With the work that Sommers has done we can reassess the contemporary problems in the platonism-nominalism debate. We have shown in our second chapter that the platonist is completely unjustified in formulating a gratuitous bifurcation of the meaning of the term 'exists'. We have shown in this third chapter that this equivocacy is caused by a lack of understanding of the way the highest predicates operate. Once we keep as distinct the class sense of a term and the category sense, we can show that the platonist has no need to maintain the equivocacy of 'exists'. By the same token, the nominalistically inclined, like Quine, need not be bothered, as he is, by the difficulties in denying the existence of certain entities.

The essential problem that both the platonists

and the nominalists have missed is that our ontology is not co-extensive with what actually exists. In this sense, the platonist is closer to the correct solution than those of the nominalistic camp, though for essentially for the wrong reasons. The debate has traditionally centered around which entities we will permit ourselves to say exist and which entities we will deny existence to. All of this has been subsumed under the heading of ontological commitment. The correct way of viewing the problem is as a problem of existential commitment.

We have shown, through Sommers' work, that the absolute predicate '/Existence/' defines the limit of our ontology. Our ontology must contain both what is correctly said to exist and what is mistakenly said to exist. For any term in the language, the absolute term defines the limit of discourse for that term. The same applies to the absolute term '/Existence/' that applies to '/Green/'. Thus, anything which is not coloured, neither green nor non-green, when it has a colour predicate applied to it results in a complex term which is a category mistake. Examples are blue integers, red heartburn,

violet hiccups, etc. The category of existence dictates the ontology of the language. What can be significantly said to exist or what can be significantly said not to exist is in the ontology of the language. Category mistakes are insignificant predications, hence are nonsensical. Category mistaken terms cannot be said to belong to the category of existence, either correctly or mistakenly. For that reason, angry bicycles, blue integers, sad prime numbers, and pink copulas that dwell on Berkeley Tower are not in our ontology. The question of their existence is inappropriately asked.

Quine is correct in insisting on the univocity of 'exists', even in cases of heterotypical predication. He is partially correct in asserting that 'exists', univocally applied, is the correct standard of ontological commitment. He is, however, gravely mistaken when he fails to distinguish the absolute predicate '/Exists/' from the positive predicate 'exists'. The positive predicate is the measure of our existential commitment,

but the absolute predicate is the measure of our ontological commitment. The platonist-nominalist question can now be put in its proper perspective. It is a debate over what does and what does not exist in the class sense of the term 'exists'. Regardless of the outcome, the ontology of the language will remain the same, for the ontology is defined by the category sense of the term, the absolute predicate '/Exists/'. Our conclusion must be that ontological commitment has been largely misunderstood.

CHAPTER IV

CONCLUDING REMARKS

Summation

In the first chapter, Quine's argument for the univocity of the predicate 'exists' was examined. Although we agreed in principle with the conclusion that Quine reached, that 'exists' must be univocal, we found that his argument by analogy was incorrect. Our primary reason for rejecting Quine's analogy was that he attempted to deny that heterotypical predication could ever be equivocal. Quine maintained that syllepses, or zeugmatic sentences, were not the result of category-mistaken predications. By denying that there can be a distinction between terms that are general and terms that are equivocal, Quine is forced to advocate an unacceptable view of predication. With Sommers' analysis we have shown that heterotypical predication can be either univocal or equivocal, depending on the predicate in question. Quine's treatment of the predicate 'hard' shows that his argument must

be rejected.

In chapter II we attempted to justify our conclusions from the first chapter by offering an historical approach to the theory of types. Beginning with Russell, we found that his theory was inadequate because it was incapable of making any type distinctions. Black's criticism of Russell was found to be very devastating to Russell's theory of types. The primary reason for Russell's failure to develop the correct theory of types was due to the fact that Russell confused the U-relation with his theory of types. As Sommers' analysis shows, the U-relation is a non-transitive relation, and so is Russell's relation 'is the same type as'.

Following our rejection of Russell, we examined Black's Transitivity Rule as a negative criterion for distinguishing type difference. However, the Transitivity Rule was then found to be too powerful because it enforced ambiguity where we would not want to. With Sommers' work we were subsequently able to show that the Transitivity

Rule could not be a rule of natural language.

Sommers, by understanding the situation, was able to offer a theory of types that retained transitivity for the relation 'is the same type as', but avoided the problems confronting Russell and Black. From Sommers' notions of U-relatedness, type difference, and logical type, we were able to construct Sommers' Rule For Enforcing Ambiguity. This powerful philosophical tool was shown to provide the solution to Quine's problems with the predicates 'hard' and 'exists'. With Sommers' rule, we were able to show that, given an ordinary but univocal sense of 'exists', we would be unable to construct a situation wherein we would violate the rule. On the other hand, by presupposing an equivocal sense of 'exists', we could construct such a violation, and thus enforce ambiguity on 'exists'. But, as we had already presupposed the equivocacy of 'exists', we found that we were indeed presupposing that which we wished to prove. For this reason, we concluded that 'exists' must be univocal.

In the third chapter we made a very important distinction, a distinction between the ordinary predicate use of a term and the category use of a term. This led to a number of important findings, primarily that the category sense of a term could be used to delineate the ontology of the language.

What is involved in this assertion has a far reaching effect for contemporary philosophical endeavours. With the predicate 'exists' we found that in its predicate sense 'exists' could not be taken as the standard of ontological commitment, as Quine believed. In its predicate sense 'exists' is the standard of existential commitment. The ontology of the language is delineated both by what may be significantly said to exist, and by what may be significantly but mistakenly said to exist.

In conjunction with this conclusion was the conclusion that category-mistaken terms could not be part of the language, and thus, what they referred to could not be in the ontology. Sommers has characterized this

as categorical necessity.[61] We conclude then that such entities as pink copulas, green itches, sad stones, and the like cannot be in the ontology because they neither exist nor fail to exist. Unlike 'Pegasus', they have no significant context, and are not terms in the language.

The effect of these conclusions is that we find ourselves asserting that ontological commitment has been largely confused with existential commitment, particularly by such philosophers as Quine. It can thus be said that the number of individuals in our ontology is greater than the number of individuals in existence, but that the number of different types of individuals in our ontology is equal to the number of different types of terms in our language.

It was observed at the end of Chapter III that we are in effect rejecting the approach of Russell and are in

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[61] Fred Sommers, "Why is There Something and Not Nothing?," Analysis 26, No. 6 (June 1966): 177.

fact suggesting a reassessment of Meinong.[62]

An Example: A Criticism of Strawson

As a conclusion to this thesis, we would like to recapitulate the efficacy of Sommers' work by offering a brief outline of some practical uses to which Sommers' theory can apply.

Using a rough character sketch of an arbitrary person, Jones, we can demonstrate more clearly some of the aims of a theory like that of Sommers'. We will say that Jones' characteristics comprise a set. Indeed, recalling Strawson's terminology, Jones' non-physical characteristics comprise the whole set of P-predicates.[63] What follows, then, is a brief list of some of Jones' P-predicates.

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[62]For a reassessment of Meinong along the lines of Sommers' work, see George Englebretsen, "Sommers on the Predicate 'Exists'," Philosophical Studies 26 (1973): 419-423, and Englebretsen, "Meinong on Existence," pp. 80-82. For a criticism of Russell's views on Meinong, see Roderick M. Chisholm, "Beyond Being and Nonbeing," Philosophical Studies 24 (1973): 245-257.

[63]P. F. Strawson, Individuals, (London: Methuen & Co., University Paperbacks, 1969) pp. 104-112.

Jones	is intelligent	(Ij)
	is gentle	(Gj)
	loves Mary	(Ljm)
	scolds his children	(Sjc)
	is forgetful	(Fj)
	teaches school	(Tj)
	likes philosophy	(Ljp)

Using Sommers' notion of absolute predicate, we realize that every P-predicate spans the person known as Jones, and spans every other person as well. (Recall that the absolute predicate is not influenced by truth or falsity, only significance.) Thus, Smith, whose character may be entirely different, is defined by the same set of P-predicates that define Jones.

Smith	is not intelligent	-(Is)
	is not gentle	-(Gs)
	etc.	

Indeed, the set of P-predicates is sufficient to describe the non-physical characteristics of any person. Recalling Sommers' theory of types, the set of P-predicates is by definition an A-type with respect to the set of people. What Sommers' theory does is to operate as a profoundly useful philosophical tool. If, for example, someone wanted to claim that a certain computer, c, thinks, he must be prepared to accept certain consequences of his claim in order to maintain a consistent position. Sommers

has already given us a sound criterion for distinguishing when two things are of different ontological types, and we will apply this to Jones (as exemplary of all persons) and to c (as exemplary of certain computers). 'Scolds his children' is a predicate applicable to Jones but not to c, while 'invented in 1932' is a predicate that spans c but not Jones. Thus we know that Jones and c are of ontologically different types.

According to Sommers' type definitions, the set of people is an alpha-type with respect to the absolute predicate '/Likes philosophy/'. Taking the set of predicates which define the same alpha-type (the set of people) this set of predicates constitutes an A-type (in this case, the A-type is the set of P-predicates). Thus the set of P-predicates is the A-type that spans all and only those elements in the set of people and nothing outside the set of people. As we have just stated, the set of people constitutes an alpha-type with respect to one P-predicate, but with respect to the A-type comprising the set of all P-predicates, the set of people constitutes

a beta-type. In this particular case, the alpha-type and the beta-type are co-extensive, though it is not always the case with alpha- and beta-types. In the case of a predicate like 'is interesting', the alpha-type spanned by 'is interesting' includes a large number of distinct beta-types, that is, the beta-type comprised of the set of people is not the only type of thing spanned by 'is interesting'.

If we take the predicate 'thinks' and say that 'thinks' is univocally predicable of people and computers, then every other member of the A-type of which 'thinks' is an element must span computers as well. It follows from the predication of 'thinks' to computers that all P-predicates span computers, for we have shown in Chapter II that A-types are transitive for the relation 'is the same type as'. The alternatives that this situation presents are (I) that computers are the same beta-type as people, (II) that P-predicates are equivocal over computers and people, or, (III) that P-predicates must be redefined. It is important that Sommers' theory cannot

make the decision as to which of these alternatives is the correct one; it only delineates the consistent alternatives. In the face of other difficulties, it would appear that the most reasonable alternative is that P-predicates are systematically equivocal over people and computers.

A similar situation arises in connection with Strawson, when we consider the applicability of P-predicates to animals. If we, for example, are willing to concede that a predicate like 'exhibits fear' is a P-predicate and means the same thing when applied to dogs and to people, then Strawson must face certain choices, such as the following: (I) redefine P-predicates so as to exclude those that appear to span animals, (II) include animals in the same beta-type as persons, which means that all P-predicates apply univocally to animals and persons, or, (III) hold equivocacy in all cases where P-predicates are applied to animals.[64]

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[64] Englebretsen gives a serious criticism of Strawson's theory of persons on the grounds that, if it admits of the existence of disembodied spirits, it is inconsistent and violates Sommers' Rule For Enforcing Ambiguity. Cf. George Englebretsen, "Persons and Predicates," Philosophical Studies 23 (1972).

As a philosophical tool, Sommers' theory cannot be used to solve Strawson's dilemma. It is only a means of checking a theory for consistency and for eliminating category mistakes in the language. Sommers' work has shown us that something is wrong with Strawson's position; it is incoherent. Since we can see where Strawson's difficulties arise, we have been able to offer some possible solutions that will maintain consistency. Sommers has shown us that the question of whether some P-predicates apply to animals, and whether some of the higher animals do in fact think is essentially a zoological question, not a philosophical question. We must re-iterate that what is important is to understand that Sommers' work cannot correct Strawson's position as such, it can only outline the consistent alternatives. The decision must be Strawson's, and no doubt, further empirical evidence will largely influence how we will come to use P-predicates when speaking of animals.

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