LOGIC AND EXISTENCE

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ABSTRACT

This thesis is a logical/historical inquiry into the concept of being. Relative to this concept, there are (I contend) two great traditions in Western philosophy. According to the one, the predicational use of the verb 'to be' is not independent of its existential use; according to the other, it is. That is to say, the first tradition assumes that 'a is F' entails 'a exists', while the other tradition denies this entailment. There are prima facie problems in both traditions, and the thesis attempts to resolve those arising on the assumption that the entailment holds. The thesis does not assume that either tradition as such is wrong. It is rather maintained that we may adopt either forms of language in which the predicational use of 'to be' is not independent of its existential use, or else forms of language in which the two uses are independent. When we make the first move, the result is a Fregean style of quantification theory in which existential generalization holds as an unconditionally valid form of inference; when we make the second move, the result is a free logic such as we find in the systems of Lambert and van Fraassen. Though I do not attempt to discredit either tradition as a whole, I do criticize specific claims made by the adherents of both traditions. On the whole, however, I am far more critical of those in the tradition to which the free logicians belong than I am of those in the tradition to which Frege belongs. The thesis attempts to show that in Frege's quantification theory we have a satisfactory explication of our concept of existence. The thesis offers some reasons for thinking that
in the alternative tradition of the free logicians no such explication has yet emerged. The thesis concludes with a brief account of modality in which it is not assumed that individuals can possess characteristics independently of their existence.
CONTENTS

INTRODUCTION TO THESIS .........................................................1-5

PART I: GREEK THOUGHT ..........................................................6-91
1 Parmenides ................................................................. 7-65
2 Aristotle ................................................................. 66-90

PART II: MEDIEVAL THOUGHT ..................................................92-175
3 Anselm .............................................................. 93-134
4 Leibniz .............................................................. 135-174

PART III: MODERN THOUGHT ..................................................176-310
5 Frege .............................................................. 177-220
6 Russell .............................................................. 221-309

SELECTED BIBLIOGRAPHY ...................................................311-314
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INTRODUCTION

In this thesis I will discuss some familiar problems concerning the application of quantification theory to natural languages. My aim will be to defend what I regard as a basically Fregean approach to the concept of existence, but to do so in a way which ensures greater fidelity to the workings of natural languages than Frege himself thought necessary or perhaps even desirable.

In terms of predicate extensions relative to a given domain, Frege offers what I take to be a comprehensive account of existential propositions. On this account, the proposition 'unicorns do not exist' (e.g.) means: in the domain of animals (of which unicorns would be members if there were any) the extension of the predicate 'unicorn' is null. When I say that Frege's account of existential propositions in terms of predicate extensions is comprehensive, I do not mean that singular existential propositions are somehow reducible to general ones. On the contrary, I believe that there are no singular existential propositions. With Frege I hold that, if 'a' were used as a singular term in 'a exists', then this combination of words would be meaningless. Unlike Frege, however, I do not believe that 'Julius Caesar exists' (e.g.) is meaningless. I will contend that in this proposition 'Julius Caesar' is functioning not as a name but as a general term with an ascertainable extension. Thus, on the account I will defend 'Julius Caesar exists' is retained as a significant, though general, proposition. There are philosophers who would treat it as a genuine singular proposition. In their systems, unlike Frege's, 'exists' occurs as a predicate of individuals.

There is a substantial difference between the philosophers who treat
'exists' as a predicate of individuals and those who do not. Historically the philosophers who have wished to treat 'exists' as a predicate of individuals believed that it is possible to frame propositions about what does not exist. The proposition 'Pegasus is a winged horse' (e.g.) they would regard as a true proposition about Pegasus. So regarded, however, this proposition invites the inference: therefore, winged horses exist. To block this inference these philosophers would amend existential generalization by adding 'Pegasus exists' as a premise to the inference here in question. Thus, they would alter the character of a fundamental inference in Frege's system. Moreover, they would do so by adding a premise whose unaanalysed form at least is thought illegitimate by Frege. Frege himself would avoid the problems which arise in connection with non-designating singular terms simply by excluding such terms from the 'logically perfect' language in which existential generalization holds unconditionally.

In one sense, the dispute between Frege and his critics is a trivial one. For, if we require every singular term to have a referent, then existential generalization will hold unconditionally; but, if we drop this requirement, it will not. We can therefore construct formal languages of the type Frege prefers, and we can construct some of the type his critics prefer. We must, therefore, resist representing the dispute between Frege and his critics as though it concerned the validity of existential generalization: existential generalization is valid in some languages but not in others. Our aim in this thesis therefore cannot be to pronounce upon the validity of an inference; it is rather to judge the adequacy of the language in which it is admittedly valid or admittedly invalid. Our concern is to exhibit the structure of inference in natural languages, particularly in English.
Therefore, the formal language which best exhibits that structure is, for our purposes, the most adequate. I shall contend that a formal language in which existential generalization holds unconditionally is more adequate in this sense than one in which this inference requires the addition of an existential premise. This is prima facie surprising because English abounds in such apparently nondesignating singular terms as 'Pegasus'.

Having made these remarks about the aims of the thesis, I will conclude this introduction with a few unguarded (and perhaps naive) remarks concerning the principles which have guided the investigations of which this thesis is the record.

Throughout this work I treat past philosophers seriously, carefully. There is usually more to be learnt from understanding a Leibniz than from misunderstanding him. I have for this reason occasionally been led into exegetical disputes. The thesis, however, is nevertheless not a manual in the history of philosophy. For I have not tried to characterize anyone's historical position. My aim has rather been to illuminate certain problems from a variety of perspectives. I have for this reason permitted myself to select, ignore, extend, and otherwise distort the views of actual figures. But, as Mark Twain observed, 'you have to have the facts before you can pervert them'.

I attach importance to the history of philosophy partly because of the view I take of philosophy itself. I see philosophy as being related to its history in a way that the natural sciences are not related to their histories. The natural scientist, people say, hopes to extend our knowledge of non-analytic fact, and therefore bases his work upon observation. (I hope this commonplace is true.) It is hardly surprising, therefore, that scientific
theories should be discredited by an advancing technology which gives us such wonders as the telescope and microscope; Newton certainly would not have been refuted without the invention of some quite sophisticated astronomical instruments. The discredited theories then cease to be important as science, and become mere history. In contrast, there is a view of philosophy according to which the philosopher, unlike the natural scientist, hopes to establish analytical (or conceptual) truths, truths which in principle cannot be discredited by observation, however refined. Thus, the work of past philosophers, when it is good, retains its value as philosophy.

There are unbroken traditions in Western thought from the time of the ancient Greeks to the present day. These traditions are a part of our intellectual heritage as a species, and place us in a scholarly community extended through time. When we see ideas projected through vast stretches of history and in the process formed by the art of great philosophers, it helps us to find a direction for our own thoughts, and to advance beyond the all-to-near point at which our unaided reflection leaves us. There are philosophers who, apparently not seeing their own work as a chapter in a larger history, believe that traditional doctrines are for the most part devoid of cognitive meaning. For them traditional problems (e.g., the problem of realism versus nominalism) become intelligible only in this century. But I shall resist this provincial attitude and the arrogance which accompanies it. The reader who does not likewise resist it, however, may well find the earlier parts of my work devoid of cognitive meaning. In these parts I try to give expression to some conflicting, pre-theoretical intuitions which in various ways have been captured in the formal systems which purport to exhibit the structure of sound thinking. These intuitions, though inherently credible,
are demonstrably inconsistent. Thus, to bring consistency to our thinking we must choose from amongst them. The major differences amongst logically-minded philosophers often result from their adhering to different portions of our intuitive belief in their attempts to bring consistency to our common thought. We will see how different portions of our intuitive belief are embodied in the alternative quantification theories of Leibniz and Frege. We will also see how, at an earlier stage in Western thought, Plato's system collapses into incoherence through his attempt to maintain too much of our intuitive belief concerning existence. Consistency demands that we sacrifice a portion of our intuitive belief, but it does not tell us which portion must go. I do not say that my choices in intuitive belief are the only reasonable ones to make. But I do say that these choices bring consistency to our thinking about existence while they minimize the requisite sacrifices in intuitive belief.
PART I IS INTRODUCTORY IN NATURE. ITS AIM IS MERELY TO ACQUAINT THE READER WITH THE PRE-THEORETICAL PROBLEMS LATENT IN THE CONCEPT OF EXISTENCE. TO SOME THESE PROBLEMS MAY SEEM UNWORTHY OF CONSIDERATION. BUT WE WILL MEET THEM AGAIN IN A MUCH MORE RECALCITRANT FORM WHEN WE ATTEMPT TO FORMALIZE OUR CONCEPT OF EXISTENCE.
1.0 **Introduction**  In this chapter we will show that, contrary to popular commentary, certain paradoxes in Parmenides are not due to any elementary confusions, but follow from intuitions having a widespread appeal. We will then show that Plato's attempt to resolve these paradoxes fails.

1.1 'To be' and 'fa\text{\textgreek{va}}\text{\textkappa}l' The English verb 'to be' is used in two syntactically distinct ways—i.e., it has what grammarians call (1) a complete use and also (2) an incomplete use. The complete use is exhibited in contexts such as '___ is', where we may generate a complete sentence from this schema simply by replacing the '___' with a term—e.g., 'God'. The incomplete use is exhibited in contexts such as '___ is ...', where in order to generate a complete sentence from this schema the '___' and the '...' must each be replaced by terms—e.g., respectively, 'God' and 'omnipotent'.

'I am' (as in 'I think; therefore, I am') is an example of the complete use; and 'I am wealthy' is an example of the incomplete use. It is clear that in its complete use 'to be' means 'to exist'; and we shall accordingly speak of this use as the existential use of 'to be'. It is equally clear that in its incomplete use 'to be' expresses the relation between subject and predicate; and we shall accordingly speak of this use as the predicational use of 'to be'.

Philosophers often attach great importance to the distinction between these two uses of 'to be'. Mill, e.g., writes:

\[\text{1} \text{Mill, J., A System of Logic (London: 1965), p. 50. (Bk I, Ch iv, sec. 1)}\]
Many volumes might be filled with the frivolous speculations concerning the nature of Being... which have arisen from overlooking this double meaning [existential and predicational] of the word to be; from supposing that when it signifies to exist, and when it signifies to be some specified thing, as to be a man, to be Socrates, to be seen or spoken of, even to be a nonentity, it must still, at bottom, answer to the same idea; and that a meaning must be found for it which shall suit all these cases. The fog which rose from this narrow spot diffused itself at an early period over the whole surface of metaphysics.

This passage may serve as the locus classicus of a view which we shall here dispute—viz., that the traditional discussions of ontological questions are vitiated by an unconscious equivocation between the existential and predicational uses of 'to be' and its equivalent expressions in other languages. Though Mill does not mention him, Parmenides is usually regarded as the greatest offender in this respect. Our view is that, although the fallacy of equivocation (on 'to be') has occasionally been committed, we must attend to specific arguments and show how the fallacy has been committed therein. Scholars for the most part, however, do not attempt to show in a particular argument how the fallacy has been committed, but have (like Mill) simply used the charge of equivocation to justify dismissing a whole position (e.g., that of Parmenides).

The Greek verb ἐγένετο is usually translated as 'to be'; and, like 'to be', it has a complete use and an incomplete use. In De Sophisticis Elenchis, 167a3-5, Aristotle distinguishes the complete use from the incomplete use of ἐγένετο, as follows:

...it is not the same thing "not to be x" and "not to be" at all: it looks as if it were because of the closeness of the expression, i.e. because "to be x" is but little different from "to be", and "not to be x" from "not to be".

The translator (W. A. Pickard-Cambridge) has here rendered ἐγένετο as 'to be'. 
Classical scholars, however, have recently noted certain peculiarities of "εἶναι" which distinguish it from 'to be'. Vlastos writes:

From the Greek "is" (εἶναι) we get directly the participle εἶναι, the noun, οὐναι, and the adverb, οὐνα. From the English "is" all we can get directly is the participle, being, but no noun or adverb. We can't say "beingness" or "beingly" and have to shift to "reality" and "really". But when we do this we lose a verb from the same stem: we can't say, "Socrates reals a man" or "Socrates reals wise". ... If we want to talk English, we will have to break up the consanguineous Greek quartet into two etymologically unrelated groups, picking our verbs from the first, our noun and adverb (and also the exceptionally useful adjective, "real") from the second.

As we noted, the English verb 'to be' in its complete use simply means 'to exist'. But it is highly doubtful whether "εἶναι" in its complete use carries quite this sense. Vlastos favors translating it as 'to be real or genuine', and notes the close connection for Greeks between truth and reality. Aristotle, e.g., defines 'truth' and 'falsity' as follows:

To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, or of what is not that it is not, is true.

In his well-reasoned article Kahn concludes:

...the most fundamental value of εἶναι when used alone [i.e., in its complete use] is not "to exist" but "to be the case", or "to be true". It is worth noting that this meaning of the verb, which appears among the four uses listed in the chapter of Met. Delta ... is later described by Aristotle as the "strictest" or "most authoritative" sense of "to be". (Met. Theta 10, 1051b 1)

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2See ibid., pp. 1-3.

3Metaphysica 1011b27. Also see Plato, Cratylus 385b; Sophist 263b.

In this connection it is worth noting (as Kahn does, p. 254n6) that the Oxford English Dictionary lists the following as one of the recognized meanings of 'to be' in English: 'to be the case or the fact', as in 'so be it' (s.v. 'be', B.I.3).

Kahn states that 'the Greeks did not have our notion of existence'.  
This strong claim, if true, must obviously affect our interpretation of Greek philosophy profoundly, given the importance of ontological questions in Greek thought. Indeed, the issue of realism versus nominalism is one which we inherit from Plato and Aristotle. There are passages in the Greeks (particularly in Plato) which suggest that their concept of existence is different from ours; e.g. (Rep., 476e-477b):

...Does he who knows know something or nothing? ...
I will reply, he said, that he knows something.
Is it something that is or is not?
That is. How could that which is not be known?

We are sufficiently assured of this, then, even if we should examine it from every point of view, that that which entirely is is entirely knowable, and that which in no way is is in every way unknowable?

Most sufficiently.

Good. If a thing, then, is so conditioned as both to be and not to be, would it not lie between that which absolutely is and that which in no way is?

Between.

Then since knowledge pertains to that which is and ignorance to that which is not, for that which lies between we must seek for something between nescience and science, if such a thing there be.

As this passage continues (477b-8a), Plato concludes that opinions have as
their objects things which are immediate between the extremes of existence and nonexistence. As we conceive it, however, existence, unlike anger, does not come by degrees; things do not more or less exist. If, however, we think of 'εἶναι' as meaning 'to be genuine' (as Vlastos suggests), then perhaps this passage is not straightforward nonsense. For, as Vlastos suggests, there is sense in speaking of 'degrees of genuineness': a painting done partly by Rubens and partly by his students working under his direction, e.g., is arguably 'more genuine' than an outright fake. We may wish to say that such a painting is more nearly genuine than a fake. But we should never wish to say that something is more nearly an existent than is something else.¹

The views of Kahn and Vlastos are engaging. But I think it difficult to decide whether (a) Plato had our concept of existence and simply reasoned illogically from it,² or (b) had a different concept altogether and reasoned well from that one. How are we to decide whether the Greeks possessed our concept of existence or not?³ One could not decide this issue absolutely (if indeed it can be decided absolutely) without a detailed study of the Greek language, which unfortunately I am not competent to do. In particular,

¹See 'Degrees of Reality', pp. 4-6.

²The reading of [Plato's] dialogues', says Bochenski (in Ancient Formal Logic (Amsterdam: 1963), p. 17), 'is almost intolerable to a logician, so many elementary blunders are contained in them. It will be enough to mention his struggling with the false principle $\neg S \rightarrow S \neg P$ or the difficulty he has in grasping that one who does not admit $S \rightarrow P$ must not necessarily admit $S \neg P$. (See Ibid., p. 17, footnotes for references in Plato for his alleged logical blunders). Sprague, R., replies to Bochenski’s charges in Plato's Use of Fallacy (London: 1962), pp. 86-97.

³On the general question of how we are to decide whether the same concept is expressed in two languages, see Bennett, J., Kant's Analytic (Cambridge: 1966), pp. 73-4.
it would be necessary to examine the non-philosophical uses of 'έχων', since for reasons sometimes good and sometimes bad philosophers are apt to deviate from normal usage. It is certainly relevant, however, to study the key arguments of Greek philosophers in which the concept of existence plays a part; this we shall do. Our conclusion then will be that Plato probably reasoned illogically from a concept of existence not unlike our own. To the classical scholars who think that the Greek concept of existence was different from our own, I concede at once that the Greeks did use 'έχων' (in its complete sense) differently from how we use 'to be' (in its complete sense). But every translator will admit that they sometimes used it in a way for which 'to be' seems not only the best translation but an adequate one. Our concept of existence thus appears embodied in part of their usage of 'έχων', which suggests that 'έχων' is ambiguous. Perhaps because 'to exist' is not similarly ambiguous, it appears that the Greeks may have had a different concept of existence when in fact a Greek philosopher has simply equivocated in a way that is not possible in English or other modern European languages.

1.2 Parmenides

Only 161 lines of Parmenides' work remain—146 complete lines of hexameter poetry, nine fragments of a line, and six lines of Latin translation. Though it would certainly be disputed by some scholars, I find Plato's Parmenides a useful adjunct to these meager sources. Admittedly, the Parmenides is a difficult, obscure dialogue whose over-all purpose is unclear. The dialogue is supposed to be the record of a meeting in Athens.

1 Some scholars would not even attribute a serious purpose to the Parmenides. A. E. Taylor, e.g., in Plato: the Man and his Work (London: 1960), p. 541, writes: 'More than any other Platonic work of any considerable compass, the Parmenides bears throughout the stamp of being an "occasional" composition. Its purpose is to "have some fun" with Monists who regard the sensible as illusion, and very little more'.
between Parmenides as an old man and Socrates as a youth. Though chronology does not exclude the possibility of such a meeting, the character of that meeting (if it took place at all) must have been different from Plato's description of it. For in the earlier part of the dialogue the youth Socrates expounds, and Parmenides criticizes, Plato's theory of Forms. In this part of the dialogue Parmenides deduces absurdities from Platonic premises. In the later part of the dialogue (with which we are here concerned), it is Parmenidean Monism which is under attack, and Parmenides is made to deduce absurdities in his own position. It would, of course, be foolish to assume that the historical Parmenides ever entertained quite the arguments unfolded in this part of the dialogue. But (1) there would be no point to this part of the dialogue if the premises from which the absurdities are deduced were not accepted by the historical Parmenides. Furthermore, (2) for us to understand what these premises meant to Parmenides it helps to see what kind of argument a sympathetic Greek philosopher thought they support.

Having made these remarks about sources, let us now turn to the question of interpretation. In their excellent study of the Pre-Socratics Kirk and Raven see in Parmenides an attack upon 'those who believe, as all men always had believed, that it is possible to make a negative predication'.¹ According to Kirk and Raven, the Parmenidean philosophy rests upon an elementary confusion of the existential² and predicational uses of 'ἐστὶν'. In


²Ignoring the issues raised by Kahn and Vlastos, Kirk and Raven treat 'ἐστὶν' as meaning (in its complete use) 'to exist'. Kirk and Raven are of course concerned specifically with what the verb meant to Parmenides; how they stand on the larger issues raised by Kahn and Vlastos, I do not know.
this section we will offer an interpretation of Parmenides which is opposed to that of Kirk and Raven. We will accept their translations of the fragments, and deny that the fallacy of equivocation must have been committed therein. It is thus sufficient for our purposes to show that, where Kirk and Raven think they see the fallacy of equivocation, there is in fact a valid argument—or, at any rate, one which does not commit this fallacy. Given the fragmentary state of the text, we cannot say with certainty that Parmenides intended this valid argument rather than some invalid one. But this difficulty is present for any interpretation of his writings, and as we will see the Kirk and Raven interpretation does not in any case seem supported by the text.

In fragment 346 of Kirk and Raven, Parmenides says: 'Never shall this be proved, that things that are not are'. In modern symbolism I express this claim as follows:

\[ (1) -\Diamond (\exists x)\neg \text{Ex}, \]

where 'Ex' stands for 'x exists' and '\Diamond' for 'possibly'. I.e., it is not possible that there should be something which does not exist. (1) is equivalent to the following:

\[ (1') \square (\forall x)\text{Ex}, \]

where '\square' stands for 'necessarily'. I.e., necessarily, everything exists.

One could, of course, object to (1) on the grounds that 'existence' is not a predicate. But this is a controversial point about which it would be premature at this time to be dogmatic. Naknikian and Salmon\(^1\) argue (perhaps

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\(^1\) See Naknikian, G. and Salmon, W., "Exists" as a Predicate', *Philosophical Review*, vol. 66 (1957).
cogently) that the traditional objections to 'existence' as a predicate are not well-founded. Moreover, they assert (p. 538):

\[ (\forall x) \exists x, \]

which is of course implied by (1).

By the logic of quantification theory, (1) entails the following:

\[ (\forall x)(\neg \exists x \rightarrow \neg Gx), \]

where 'G' stands for any predicate. I.e., for all x, if x does not exist, no predicate is true of it.\(^1\) Kirk and Raven (pp. 269-70) seem to criticize Parmenides for saying in fragment 344 that 'thou couldst not know that which is-not'. But, if in (3) we may interpret 'G' as 'knowable', then the unknowability of the nonexistent emerges as a valid consequence of the apparent tautology '\(\neg(\exists x)\neg \exists x\)'\(^2\).

It might be objected that we are reading too much into Parmenides. Granted, the objector might say, (3) is implied by (1), and Parmenides accepted (1). Parmenides may nevertheless not have seen the implication, and there is no fragment in which (3) is clearly expressed as such. This objection has some weight perhaps, but not much in view of the many passages in Plato where Parmenides is represented as holding (3). Here are two such

\(^1\)The scholastics accepted (3) in the form of their maxim, 'Nihili nullae proprietates sunt'—i.e., Nothing has no properties.

\(^2\)Just as Parmenides argues that the nonexistent is unknowable, Sextus Empiricus (second century AD) argues that the nonexistent is unteachable: 'Now the nonexistent qua nonexistent will not be taught; for if it is taught it is teachable, and being teachable it will become an existent. But it is not possible for the same thing to be both existent and nonexistent; therefore the nonexistent qua nonexistent is not taught--Also, the nonexistent has no property, and what has no property will not have the property of being taught'. Bury, R., tr, Works of Sextus Empiricus (London: 1959), vol. 4, p. 9.
If a thing is not, you cannot say that it "has" anything or that there is anything "of" it. Consequently, it cannot have a name or be spoken of, nor can there be any knowledge or perception or opinion of it. It is not named or spoken of, not an object of opinion or of knowledge, not perceived by any creature. (Parmenides, 142a-b)

Again, we cannot attribute to "what is not" anything that is; we cannot say it is "something" or "this thing", or that it is so-and-so "of this" or "of another", or that it is at any time, past, present, or future, or that there is anything "of it"—any knowledge or opinion, or perception of it—or that it has anything, even a name, so as to be the subject of discourse. Thus a one which is not cannot have any character whatsoever. (ib., 164b-c)

The last sentence of the second quotation in particular reveals that Greeks were quick to see that Parmenides is committed to (3), and this tells us something about how his claim 'nothing nonexistent exists' (see Metaphysics, 986b27-30) is to be understood and was understood by the Greeks themselves. Moreover, it is unlikely that Parmenides himself would have missed what others so quickly saw. I suggest therefore that (3) is the connecting premise which leads from his claim that nothing nonexistent exists to his conclusion that the nonexistent is propertyless and consequently unknowable. Thus understood, his reasoning does not (in this instance) commit the fallacy of equivocation.

Let me now cite fragment 344 in full, following it with the Kirk and Raven commentary on it (pp. 269-70):

Come now, and I will tell thee—and do thou hearken and carry my word away—the only ways of enquiry that can be thought of [literally, that exist for thinking, the old dative sense of the infinitive]: the one way, that it is and cannot not-be, is the path of Persuasion, for it attends upon Truth; the other, that it is-not and needs must not-be, that I tell thee is a path altogether unthinkable. For thou couldst not know that which is-not (that is impossible) nor utter it; for the same thing can be thought as can be [construction as above, literally the same thing exists for thinking and for being].
The goddess begins her instruction by defining "the only two conceivable ways of enquiry", which are directly contrary one to the other: If you accept one premise, then logic compels you to reject the other. The choice in fact, as Parmenides later puts it in its briefest form (347, l. 16) is simply this: \( \text{εἰ ἄρα ἄρα καὶ ἄρα,} \). Unfortunately even to translate these apparently simple words is liable to be misleading, because of the ambiguity, of which Parmenides himself was unconscious, between the predicative and the existential senses of the Greek word \( \text{εἴστιν} \). The usual translation, "it is or it is not", too easily gives rise to the question what "it" is. ... At this early stage in his poem Parmenides's premise \( \text{εἴστιν} \) has no definite subject at all: if it is necessary to translate the sentence \( \text{εἰ καὶ ἄρα,} \) then perhaps the least misleading rendering is: "Either a thing is or it is not". Parmenides is attacking those who believe, as all men always had believed, that it is possible to make a significant negative predication; but he is enabled to attack them only because of his own confusion between a negative predication and a negative existential judgment. The gist of this difficult and important fragment is therefore this: "Either it is right only to think or say of a thing, 'it is ...' (i.e., 'it is so-and-so, e.g. white', or else it is right to think or say only 'it is not ...' (i.e., 'it is not something else, e.g. black'. The latter is to be firmly rejected on the ground [a mistaken one, owing to the confusion between existential and predicative] that it is impossible to conceive of Not-Being, the non-existent. Any propositions about Not-Being are necessarily meaningless; the only significant thought or statements concern Being".

I have quoted at length from the Kirk and Raven commentary because I do not understand their argument well enough to state it myself. Whatever the argument, however, let us at least note the extreme implausibility of the individual claims in this passage. First, it seems unlikely that Parmenides set out to attack 'those who believe ... that it is possible to make a significant negative predication': his own work abounds in such claims; he says, e.g., 'what is is uncreated and imperishable, for it is entire, immovable.
and without end* (fragment 347). Second, Kirk and Raven appear to think that it was due to some confusion over negative predications and negative existentials that Parmenides believed (in their words): 'Any propositions about Not-Being are necessarily meaningless; the only significant thought or statements concern Being'. But I think it far more likely that Parmenides was led to this view by the featureless character of the nonexistent rather than by some confusion over negative predications and negative existentials (for which confusion the textual evidence is at best inconclusive).

Note that (3) above is equivalent to the following:

\[(3') (\forall x)(Gx \rightarrow Ex)\]

i.e., if any predicate applies to x, it exists. \((3')\) entails that, however 'G' is understood, we could not know something to be G unless it exists; hence, we could not isolate the characteristics of the nonexistent, and identify it. Thus, \((3')\) might well be thought to imply that 'propositions about Not-Being are necessarily meaningless', since we could never isolate a subject for our discourse.

As we have interpreted him, Parmenides is concerned, not with the problem of attributing negative predications to something, but rather with the problem of attributing any predicates (positive or negative) to what does not exist. In the Parmenides there is an acute passage (160c-2c) where Parmenides is made to unfold the problems in his own philosophy, as follows:

Now suppose one says, "if largeness does not exist", or "if smallness does not exist", or any other statement of that type. Obviously in each case it is a different thing that is spoken of as nonexistent. And so in the present case, if a man says "if a one does not exist", it is plain that the thing he is saying does not exist is something different from other things, and we know what he is speaking of. So in speaking of a "one" he is speaking, in the first place, of something knowable, and in the second of something different from other
things, no matter whether he attributes existence to it or nonexistence; even if he says it is nonexistent, we nevertheless know what is said not to exist, and that it is distinguishable from other things.

Starting afresh, then, from this supposition, "if a one does not exist", we are to consider what consequences follow.

First, it seems, this must be true of it, that there is knowledge of it; otherwise the very meaning of the supposition that "a one does not exist" would be unknown.

The point in Parmenides's philosophy which perplexes Plato comes to this:

The assertions

(i) Largeness does not exist.

and

(ii) Smallness does not exist.

are plainly different. Since (i) and (ii) have the same predicate, the assertions as wholes must differ because of a difference in their subjects.

Assuming (i) and (ii) are true, however, how could largeness differ from smallness? When things differ, they differ in their properties. But on Parmenides's principles what does not exist is propertyless.

Today, we may be inclined simply to dismiss Plato's difficulty. We are not troubled by the fact that 'largeness' and 'smallness' do not differ in extension (assuming (i) and (ii) to be true) because we know that they differ in intension. It is this intensional difference, we would say, which explains the difference between (i) and (ii). But, of course, the distinction between intension and extension was unknown to Plato and Parmenides. Even when we make it, however, there will be a problem on Parmenides's principles in accounting for the truth of negative existentials: if there isn't anything which does not exist, then Pegasus, e.g., cannot be something which does not exist. On the other hand, we do not want to say that Pegasus is
something which does exist.

Recalling that Kahn said that 'the Greeks did not have our concept of existence', let us set aside the charge of equivocation and consider Kahn's view relative to Parmenides.

Though Russell claimed that his philosophy of logical analysis put an end to the twenty five centuries of 'metaphysical error' allegedly begun by Parmenides, there are in fact a number of significant parallels between Parmenides and Russell. E.g., in connection with the Parmenidean belief that 'propositions about Not-Being are necessarily meaningless', note Russell's related view that failure of reference for a proper name suffices to make meaningless the propositions in which it occurs as subject; he writes:¹

Whenever the grammatical subject of a proposition can be supposed not to exist without rendering the proposition meaningless, it is plain that the grammatical subject is not a proper name.

Moreover, a somewhat more sophisticated version of (3') above is embodied in *14.21 of Principia Mathematica, about which Russell comments: 'If (\(\forall x)Fx\) has any property whatever, it must exist'. ²

A good deal of the Parmenidean outlook in fact finds its way into modern quantification theory; Quine, e.g., writes:³

To say that something does not exist, or that there is something which is not, is clearly a contradiction in terms; hence "(\(\forall x)(x\) exists)" must be true. Moreover, we should certainly expect leave to put any primitive name of our language for the "x" of any matrix "...x...",


and to infer the resulting singular statement from 

$$(\forall x)(\ldots x\ldots)$$

; it is difficult to contemplate any alternative logical rule for reasoning with names. But this rule of inference leads from the truth $$(\forall x)(x \text{ exists})$$ not only to the true conclusion "Europe exists" but also to the controversial conclusion "Pegasus exists", if we accept "Europe", "God", and "Pegasus" as primitive names in our language. The atheist seems called upon to repudiate the very name "God", thus depriving himself of vocabulary in which to affirm his atheism; and those of us who disbelieve in Pegasus would seem to be in a similar position.

As we all know, Quine would avoid these troubles by not treating 'Europe', 'God' and 'Pegasus' as 'primitive names in our language'. This move also suggests the Parmenidean philosophy, as is shown by the following passage

(Parmenides, 164b), in which Parmenides says:

Concerning "what is not" there cannot be any knowledge or opinion, or perception of it; we cannot say that it has anything, even a name, so as to be the subject of discourse.

Like ourselves, Parmenides is tempted (but unlike us does not resist the temptation) to treat negative existentials as untrue on the grounds that there isn't anything non-existent. Again like ourselves, he rejects the notion of an intermediate between the existent and the non-existent, saying:

The words "is not" mean simply the absence of being from anything that we say is not. We do not mean that the thing in a sense is not, though in another sense it is. The words mean without any qualification that the thing which is not in no sense or manner is, and does not possess being in any way. (Parmenides, 163c-d)

These remarks tend to undermine Vlastos's 'degrees of reality' thesis.

In 'The Greek verb "To Be" and the Concept of Existence' (p. 248) Kahn disputes the adequacy of quantification theory for expressing the Greek concept of existence. But we have seen that quantification theory seems very well suited indeed to express Parmenides's claims, and that, thus expressed,
the claims are considerable. To understand the text, therefore, we do not seem called upon to attribute a foreign concept of existence to Parmenides.

After referring to *Metaphysica*, Delta 7, in which Aristotle gives 'to be true' as a fundamental meaning for 'ei yap', Kahn offers his interpretation of Parmenides as follows:

Parmenides' thesis ei yap means "it is the case", where it is the subject (or the object) which we know. Parmenides is making the obvious, but not entirely trivial claim that whatever we know, whatever can be known, is—and must be—determinately so, that it must be actually the case in reality or in the world. If we restate Parmenides' claim in the modern, formal mode, it might run: "m knows that p" entails "p".

On Kahn's account, Parmenides's poem is more a treatise in epistemology than ontology. I agree that the verb 'ei yap' carries the sense of 'to be true', but disagree with Kahn over what is fundamental in Parmenides. It is hard for me to believe that Parmenides would have said 'it is the case' to mean 'whatever we know must be true'; the latter view could at most be a consequence of the former. There is an epistemological side to Parmenides's doctrine; but my interpretation does justice to it. If we may take Kahn's 'actually the case in reality' to mean 'existent', then as we saw the unknowability of what is not 'actually the case in reality' emerges as an immediate consequence of (1) above. But I think that epistemological side in Parmenides is largely undeveloped; for its development we must turn to the sophists and Plato.

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2Kahn's interpretation of Parmenides is anticipated by Hintikka, who credits 'the old man' with an 'early recognition of the impossibility of "false knowledge"'. Hintikka, J., *Knowledge and Belief* (Ithaca, New York), p. 22n7.
1.3 The Sophists

The sophists were itinerant teachers in ancient Greece—or, as Plato prefers to put it (Sophist 223b), 'paid hunters of rich young men'. Apart from its historical context, neither the sophist movement nor Plato's reaction to it is intelligible. Therefore, though of course the history of Greece is familiar to all, let us begin our discussion of the sophists with some reminders of the circumstances which caused them to prosper.

Schools—i.e., immovable places of education—came rather late to Greece; and, when they did come, they were not welcomed by all. For in the old aristocratic tradition (which many were reluctant to abandon) education had meant an intimate union between a youth and an older man, in which the older man assumed responsibility for the character of the youth and served as his guide and model. I would guess that this highly personal system of education fell into disrepute partly because of the large part which pederasty inevitably played in it.¹ But in any case the rise of democratic commonwealths made the aristocratic ways obsolete. Skill in oratory became more important than skill in hunting and other sports. The sophists, and after them the schools, developed out of the new educational needs of the polis. For their services the sophists preferred a fee to the favors of young men. For this preference they were roundly condemned by Plato, an aristocrat who resisted the spread of democracy.²


Economic considerations required the sophists to aim at a broad appeal. No doubt, given the state of their society,\(^1\) the moral relativism for which the sophists are famous today found a receptive audience, particularly since moral relativism is in any case a popular position with those who have given moral problems a little thought. For the sophists,\(^2\) however, moral relativism was but a special case of an all-encompassing relativism, which must have seemed paradoxical to their audience; 'everything is true', remarked Protagoras, the greatest sophist.\(^3\) Truth and falsity, not only in moral discourse but in all discourse, seem to have been a matter of mere convention with the sophists. Unfortunately, not much sophist writing has survived. But from Plato and other near contemporary sources we know the sophists taught that any opinion, however absurd, can be established by argument; and, coming to us via Plato and Aristotle, we have a number of simply awful sophist arguments purporting to prove patent absurdities. For example, in Euthydemus 298a-e Plato has the sophist Euthydemus argue that the puppies of Ctesippus's dog are the brothers of Ctesippus, as follows: since this dog is a father and yours, it is your father; therefore, its puppies are your brothers.

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\(^2\)Specialists doubtless would object to my speaking of 'the sophists' as if they were a school or movement with a common practice and body of belief. To be exact, when I speak of 'the sophists', I mean (unless a particular figure outside the group is named) 'Protagoras and his people'. (Euthydemus 286c) Even then our concern is not with Protagoras's position as he understood it, but rather with that position as Plato understood it and presented it in the dialogues.

Most of the surviving sophisms could fool only a real dullard; and so, if there weren't more art to some of them, the sophists could hardly have sustained the heated interest of Plato and Aristotle. It is, I think, chiefly the ambiguity of 'εἰσὶν' which made some of the sophisms philosophically important to Plato and Aristotle. For, when we recall that 'εἰσὶν' meant both 'to exist' and 'to be true', then in Parmenides's denial of non-being we may also see Protagoras's denial of falsehood. Thus, in the *Cratylus* 429d-e we find this exchange:

Socrates: Does your statement amount to this, that it is altogether impossible to speak falsely? For there are many who say this, my dear Cratylus, and there have been many in the past.

Cratylus: Why, Socrates, how can a man say that which is not?—say something and yet nothing? For is not falsehood saying the thing which is not?

Diogenes Laertius says that Protagoras was the first to hold that 'there are two sides to every question'.¹ For this seemingly bland truism it is odd to see authorship ascribed, but what Protagoras meant by it was something wildly paradoxical. As Plato points out indirectly,² he meant that, given any proposition A and its negation -A, both are true—i.e., there is no contradiction, since everything is true. If one claim cannot be said to contradict, however, then (as Plato saw) the very possibility of intelligent disagreement is lost. The epistemological analogue to the Parmenidean paradoxes over nonexistence is the problem of finding a place for error in one's theory of judgment, and that task in turn requires that a place for

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² See *Euthydemus* 385d-386e. Protagoras's views in this connection are ridiculed by Plato in *Euthydemus* 287a-b, 297a-b, 300b-e, and finally 303d-e.
falsehood be found in one's theory of truth. It is, I think, in this latter connection that the sophists were primarily of interest to Plato.

1.4 The Euthydemus

Though rarely studied or even read, the Euthydemus exhibits that perfection of form which is characteristic of Plato's finest work. The structure of the Euthydemus is bound to be pleasing to thoughtful readers, who must enjoy seeing its apparently unrelated topics introduced unexpectedly only to find them in the end drawn together in Plato's usual manner when they are related by implication to a single theme of overriding importance. That theme for the Euthydemus is the fallacy of equivocation. The Euthydemus, as Jowett remarks, 'may fairly claim to be the oldest treatise on logic'; it is partly for this reason that I here offer a commentary on this neglected work, but we will see that it is relevant to the ontological and epistemological problems with which we are now concerned.

Perhaps better than any other dialogue does, the Euthydemus introduces us to the practice of sophistry, and reveals Plato's attitude toward it. The two sophists, Euthydemus and Dionysodorus, have such skill 'in the war of words, that they can refute any proposition whether true or false'. (272b) Socrates hopes that they will apply their skill in disputation to his young

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1All translations from the Euthydemus are by Jowett.

2The Euthydemus is thus an important dialogue in connection with the charge that Parmenides is guilty of an equivocation.


4I am here using 'disputation' as a name for what was almost a parlor game with the Greeks, in which one person puts a series of questions to another, questions that can be answered only with a 'no' or 'yes'. (Notice in the Euthydemus how the sophists object to Socrates qualifying his answers; see, e.g., 296a-b). The object of the game is for the questioner to drive the answerer into contradiction, and of course for the answerer to avoid being so driven.
friend Cleinias, so that through a discussion of knowledge and wisdom his character might be improved. (275b) But the two sophists, unlike Socrates, care nothing about Cleinias's character 'if the young man is only will to answer'. (275b)

Taking advantage of ambiguities only partly reflected in English, Euthydemus asks Cleinias a series of questions, beginning with: 'Are those who learn the wise or the ignorant?' (275d) Equating 'wise' with 'intelligent', the boy answers 'the wise'. (276a) Shifting the ground somewhat, Euthydemus then draws out of Cleinias the admission that learners must be ignorant of that which they are about to learn (276a-c), and triumphantly concludes: 'Then the unlearned learn, and not the wise, Cleinias, as you imagine'. (276b)

The dialogue continues in this vein until Socrates, seeing the boy 'in deep water' (277d), warns him:

...you have just gone through the first part of the sophistical ritual, which, as Prodicus says, begins with instruction in the correct use of terms. The two foreign gentlemen, perceiving that you did not know, wanted to explain to you that the word "to learn" has two meanings, and is used, first, in the sense of acquiring knowledge, and also, when you have the knowledge, in the sense of reviewing this same matter, whether something done or spoken, by the light of this newly acquired knowledge; the latter is generally called "understanding" rather than "learning", but the word "learning" is also used; and you did not see, as they explained to you, that the term is employed of two opposite sorts of men, of those who know, and of those who do not know. There was a similar trick in the second question, when they asked you whether men learn what they know or what they do not know. These parts of learning are not serious, and therefore I say that the gentlemen are not serious, but are only playing with you. For if a man had all that sort of knowledge that ever was, he would not be at all wiser about the truth of things. ... (277e-8c)

Toward the end of Socrates's warning to Cleinias, we see Plato's judgment of sophistry: it is a mere game which does not advance understanding. But, of
course, through his examination of sophistry Plato hopes to advance understanding. And as the sophistry becomes more subtle, he does.

When Socrates is through with his warning and with some discussion between Cleinias and himself, Dionysodorus asks him whether he and Ctesippus (Cleinias's lover) truly wish Cleinias to become wise, to which Socrates of course answers that they do. (283b-c) 'You wish him to become what he is not, and no longer to be what he is?' asks Dionysodorus. (283d) At this suggestion Socrates is 'thrown into consternation', as Dionysodorus equates the desire to see Cleinias 'become what he is not' with a desire to see him destroyed. (283d-e) That is, Dionysodorus (to put the matter in general terms) equates 'x is not-F' with 'x is not', where the latter claim is taken to mean 'x does not exist'. Dionysodorus thus confuses negative predicational claims with negative existential claims in precisely the way Kirk and Raven said that Parmenides does; and so Plato's handling of the matter would not be without interest to us. But before Socrates can discuss Dionysodorus's statements, he is interrupted by Ctesippus, who at the suggestion that he and Socrates would wish Cleinias destroyed 'got very angry (as a lover well might) and said: "Stranger of Thurii—if politeness would allow me I should say, A plague upon you! What can make you tell such a lie about [us]".' (283e)

With this interjection, the topic of discussion changes. Euthydemus, now speaking instead of Dionysodorus, asks: 'do you think, Ctesippus, that

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1 At 285a-c, Socrates returns to this fallacy in which negative predicational claims are confused with negative existential claims, but is content there to deal ironically with it, saying: 'If [the sophists] know how to destroy men in such a way as to make good and sensible men out of bad and foolish ones... let them, in their phraseology, destroy the youth and create him again wise'.
it is possible to tell a lie?" (283e) Ctesippus of course answers that it is (283e), and here is the exchange which follows (283e-4c):

And in telling a lie, do you tell the thing of which you speak or not?
You tell the thing of which you speak.
And he who tells, tells that thing which he tells, and no other?
Yes, said Ctesippus.
And that is a distinct thing apart from other things?
Certainly.
And he who says that thing says that which is?
Yes.
And he who says that which is, says the truth. And therefore Dionysodorus, if he says that which is, says the truth about you and no lie.
Yes, Euthydemus, said Ctesippus; but in saying this, he says that which is not.
Euthydemus answered: And that which is not is not?
True.
And that which is not exists nowhere?
Nowhere.
And can anyone do anything about that which has no existence? Can anyone, whosoever he be, act on things which exist nowhere?
I think not, said Ctesippus.

To put the matter briefly, if lying is saying the thing which is not, then liars have nothing to say. This is perhaps a 'quibble', as Philip Rouse suggests in his edition of the Euthydemus;¹ but it is one which has the support

of Parmenides (Parmenides 142a-b): if 'a thing is not ..., it is not named or spoken of'.

Except for an brief remark by Ctesippus at 284c, no reply is given to the sophist argument against falsehood and lying. Instead, a short exchange on contradiction (285d-6d) follows, in which Dionysodorus says that there can be no such thing as contradiction, since 'no man could affirm a negative; for no one could affirm that which is not'. (286a) Socrates then points out that this view of contradiction is involved with the Protagorean dictum that 'there is no such thing as falsehood', a dictum to which Dionysodorus readily assents. (286c-d) But, if everything a man says is true, continues Socrates, it would seem that there is no such thing as ignorance, since a man can speak truly on any topic. Again Dionysodorus assents. (286d-e) But, if there is no ignorance, then what, asks Socrates, have these sophists come to teach? To this question Dionysodorus responds by calling Socrates 'an old fool'. (287b) Having thus traded argumenta ad homines, equivocation again becomes the topic, with this exchange between Dionysodorus and Socrates:

Are the things which have sense alive or lifeless?

They are alive.

And do you know of any word which is alive?

1where Ctesippus unsatisfactorily says that he who speaks falsely 'says what is in a certain way and manner, and not as it really is'. (Significantly, it is Ctesippus rather than Socrates who makes this remark.)

2Plato slyly says that the Protagorean dictum of universal truth 'is suicidal as well as destructive'. (286c) Aristotle less slyly says (Metaphysica 1012b15): 'he who says that everything is true makes even the statement contrary to his own true, and therefore his own not true'.
I certainly do not.

Then why did you ask me what sense my words had?

Why, because I was stupid and made a mistake.¹

At 293b-d Euthydemus undertakes to show Socrates, who had always made a profession of his own ignorance (see Apology 21a-3c), that he is omniscient:

...tell me [asks Euthydemus] do you know anything?

Yes, I said, I know many things, but not anything of much importance.

That will do, he said: And would you admit that anything can be what it is, and at the same time not be what it is?

Certainly not.

And did you not say: that you knew something?

I did.

If you know, you are knowing.

Certainly, of just the knowledge which I have.

That makes no difference;—and must you not, if you are knowing, know all things?

Certainly not, I said, for there are many other things which I do not know.

And if you do not know, you are not knowing.

Yes, friend, of that which I do not know.

Still you are not knowing, and you said just now that you were knowing; and therefore you are and are not the identical you, at the same time and in reference to the same things.

¹Apparently missing the irony of this passage, Edith Hamilton says that Dionysodorus's remarks 'are acknowledged ... to be a knockout blow', and infers that our thinking is more advanced than that of the ancients, whose 'reasoning was largely verbal'. See Hamilton, E. and Cairns, H., eds, Plato: The Collected Dialogues, p. 385.
Imagining himself to have reduced Socrates to contradiction, Euthydemus thinks that he has won this disputation. It is clear, however, from how Socrates qualifies his answers that Plato is not fooled by this sophism purporting to prove that, if Socrates knows anything, he knows everything. Believing (or pretending to believe) that '(∃x)-(Socrates knows x)' is the contradictory of '(∀y)(Socrates knows y)', Euthydemus infers that '(∃y)(Socrates knows y)' entails the negation of '(∃x)-(Socrates knows x)', which is, of course, '-(∃x)-(Socrates knows x)'. Since this last proposition is equivalent to '(∀x)(Socrates knows x)', Euthydemus concludes that '(∃y)(Socrates knows y)' entails '(∀x)(Socrates knows x)'; i.e., he concludes that, if Socrates knows anything, he knows everything. Since, however, '(∃y)(Socrates knows y)' and '(∃x)-(Socrates knows x)' are not contradictories, Socrates may know some things while being ignorant of others; and the argument is therefore fallacious.

To us, the fallacy in Euthydemus's argument is obvious. But consider the matter in its context. By philosophers and sophists alike there had been a good deal of mystifying talk about knowledge. Protagoras had said (at least by implication) that we know everything; whereas Georgias of Leontinoi, another sophist, had said that we know nothing. The obvious truth, of course, is that we know somethings and not others. But this obvious truth was obscured by the sophist confusion (perhaps deliberate) of 'x is not-F' with 'x is not', where the latter proposition is understood as a negative existential. For, having thus equated negative predicational claims with negative existential claims, the sophists could then invoke the authority of Parmenides to prove that no negative predicational claim is true: to see how easily the Parmenidean philosophy can be made to degenerate into sophistry, we have on-
ly to recall the commentary of Kirk and Raven. As we saw, Parmenides treated 'x is not', understood existentially, as self-contradictory when 'x' is replaced by a name. The claim 'Socrates does not know x' is, of course, a negative predicational claim. Therefore, if, as the sophists argued, no such claims are true, then Socrates could not fail to know something and would be omniscient after all. The perfectly good word 'know' had been thus ruined by the vain speculations of sophists and philosophers. By putting matters in concrete terms Plato tries to dispel the mysteries created by these vain speculations:

I adjure you, said Ctesippus, interrupting, give me some proof [that you are omniscient].

What proof shall I give you? [Dionysodorus asked]

Will you tell me how many teeth Euthydemus has? and Euthydemus shall tell how many teeth you have.

Will you not take our word that we know all things?

Certainly not, said Ctesippus: you must further tell us this one thing, and then we shall know that you are speaking the truth; if you tell us the number, and we count them, and you are found to be right, we will believe the rest. (295b-d)

But the sophists refuse.

I come at last to the part of the Euthydemus which is always cited to demonstrate how far thinking has progressed since ancient times. I mean, of course, the famous story of Ctesippus and his dog. (298a-9e) It would surely be absurd to suggest that the argument purporting to establish the kinship of Ctesippus and his dog is one which could have fooled Plato's audience. On the contrary, given the context in which this argument occurs, Plato can have but one purpose in telling it: he is reasoning with 'logical analogies';¹

¹See Copi, I., Introduction to Logic (New York: 1968), pp. 157-9, and then compare Euthydemus 293b-d to Euthydemus 297c-8c.
that is, he is presenting a clearly invalid argument and thereby revealing the invalidity of a perplexing argument of the same form. That perplexing argument is, of course, the one which moves from \(\neg (\exists y)(Socrates \text{ knows } y)\) to \(\exists y(Socrates \text{ knows } x)\).

Let me cite the relevant passages at some length, beginning as follows:

...is Patrocles your brother [, Socrates]?  
Yes, he is my half-brother, the son of my mother, but not of my father.  
Then he is and is not your brother.  
Not by the same father, my good man, I said, for Chaereodemus was his father, and mine was Sophroniscus.  
And was Sophroniscus a father, and Chaeredemus also?  
Yes; the former was my father, and the latter his.  
Then, he said, Chaeredemus was other than a father.  
Then my father, I said.  
But was he then a father, being other than a father? or are you the same as a stone?  
I certainly do not think I am a stone, though I am afraid that you may prove me to be one.  
Are you not other than stone?  
I am.  
And being other than stone, you are not stone; and being other than gold, you are not gold?  
Very true.  
And so Chaeredemus, being other than a father, is not a father?  
I suppose that he is not a father, I replied.  
For if, said Euthydemus, taking up the argument, Chaeredemus is a father, then Sophroniscus, being other than a father, is not a father; and you, Socrates, are without a father.  

(297d-8b)
It is sometimes said (by Russell, e.g.) that before our century relations and relational inference had been rejected for poor reasons or simply ignored altogether. In this passage, however, Plato is clearly aware of the dis-analogy between 'x is a stone' and 'x is a father' arising out of the fact that 'being a father', unlike 'being a stone', is a relational predicate. Given the non-relational predicate 'being a stone', from the claim 'x is other than a stone', it follows that x is not a stone at all. But, given the relational predicate 'being a father', from the claim 'x is other than Socrates's father', it does not follow that x is not a father at all, since x may be someone else's father. It is left to the reader to observe that 'to know' is like 'to father', not like 'to be stone'.

The dialogue continues:

Ctesippus, here taking up the argument, said: And is not your father in the same case [as Socrates's father], for he is other than my father?

Assuredly not, said Euthydemus.

Then he is the same?

He is the same.

The idea does not please me; but is he only my father, Euthydemus, or is he the father of all other men?

Of all other men. Do you suppose the same person to be a father and not a father?

Certainly, I did so imagine, said Ctesippus.

And do you suppose that gold is not gold, or that a man is not a man?  (298b-c)

Notice that the sophist must again return to non-relational predicates, such as 'being gold' or 'being a man', in order to make it seem that there is a contradiction involved in asserting that the same man may simultaneously be a father [to some] and not be a father [to others]. Again, it is left to
the reader to observe that a man may know some things and not others, just as he may father some children and not others.

Ctesippus remarks that 'it is monstrous to suppose that your father is the father of all'. (298c) For that view entails that he 'has a progeny of sea-urchins and gudgeons and puppies and little pigs'. (298d) It is following this remark that the oft-quoted story of Ctesippus and his dog comes:

If you will answer my questions, said Dionysodorus, I will soon extract the same admissions from you, Ctesippus. You have a dog?

Yes, a villain of a one, said Ctesippus.

And he has puppies?

Yes, and they are very like himself.

And the dog is the father of them?

Yes, he said, I certainly saw him and the mother of the puppies come together.

And is he not yours?

To be sure he is.

Then he is a father, and he is yours; ergo, he is your father, and the puppies are your brothers. (298d-e)

This talk of sea-urchins and gudgeons and dogs is the death-blow to the sophist treatment of knowledge. Discounting a few theists who think God is the father of all, no one would think that his father, or anyone else's, is the father of all. But on Protagoras's authority someone who had been suitably confused by Parmenides may well have thought that man, being the measure of all things, is in some sense omniscient. It is Plato's reasoned conclusion that this view of knowledge is no less absurd than the analogous view of fatherhood. Moreover, this is a conclusion for which the thoughtful reader is systematically prepared.
We conclude our commentary on the *Euthydemus* with the following remarks. The *Euthydemus* follows the pattern of the early dialogues in that it raises quite general questions while answering only specific arguments, and is therefore somewhat unsatisfying to the reader. Plato has perhaps discredited certain sophist arguments. But we have already seen that, contrary to Kirk and Raven, the Parmenidean paradoxes about existence and knowledge are not mere sophistry. Given Plato's alliance with Parmenides, therefore, we are left wondering how he would account for the possibility of (1) false statement, and (2) significant denials of existence. For his treatment of the general issues which make the *Euthydemus* interesting, we must turn to a late dialogue, the *Sophist*.

1.5 Plato on False Statement: A Commentary on the *Sophist* 236e-9b and 260a-4c

The ostensive aim of the *Sophist* is to define 'sophistry', and Plato concludes the *Sophist* (268c-d) with the following definition:

The art of contradiction making, descended from an insincere kind of conceited mimicry, of the semblance-making breed, derived from image making, distinguished as a portion, not divine but human, of production, that presents a shadow play of words—such are the blood and lineage which can, with perfect truth, be assigned to the authentic Sophist.

One of the deceitful things which the sophists did in the *Euthydemus*, as we saw, to argue that, since there is no falsehood, deceit is impossible. To give his definition of 'sophistry' a non-empty extension, Plato sets out in the *Sophist* to find correct terms in which one may say or think that falsehoods have a real existence, without being caught in a contradiction by the mere utterance of such words. (237a)

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1 Unless otherwise indicated, all translations from the *Sophist* are by Cornford.
Though the Euthydemus did not so much as mention Parmenides, the chief speaker of the Sophist (the Stranger) is introduced as one who 'belongs to the school of Parmenides and Zeno'. (216a) The reason for making the chief speaker an Eleatic philosopher rather than a sophist is that Plato sees in Parmenides some unintended but pernicious philosophical support for what would otherwise be an uninteresting absurdity—viz., that there is no falsehood; thus he says:

The audacity of the statement [that falsehood exists] lies in its implication that "what is not" has being, for in no other way could a falsehood come to have being. But, my young friend [Theaetetus], when we were of your age the great Parmenides, from beginning to end, testified against this, constantly telling us what he also says in his poem, "Never shall this be proved—that things that are not are". (237a-b)

Unwilling to believe that there is no falsehood, Plato proposes 'to put [Parmenides's] statement to a mild degree of torture..., studying it on its own merits'. (237b) He begins by showing exactly how in his view Parmenides's statement implies that there is no falsehood, as follows:

Stranger: ...tell us to what this name can be applied—"that which is not". ...

Theaetetus: That is a hard question. ...

Stranger: Well, this much is clear at any rate, that the term "what is not" must not be applied to anything that exists.

Theaetetus: Certainly not.

Stranger: And since it cannot be applied to that which exists, neither can it properly be applied to "something".

Theaetetus: How so?

Stranger: Surely we can see that this expression "something" is always used of a thing that exists. We cannot use it just by itself in naked isolation from everything that exists, can we?
Theaetetus: No

Stranger: Is your assent due to the reflection that to speak of "something" is to speak of "some one thing"?

Theaetetus: Certainly.

Stranger: Because you will admit that "something" stands for one thing, as "some things" stands for two or more.

Theaetetus: Yes.

Stranger: So it seems to follow necessarily that to speak of what is not "something" is to speak of no thing at all.

Theaetetus: Necessarily.

Stranger: Must we not even refuse to allow that in such a case a person is saying something, though he may be speaking of nothing? Must we not assert that he is not even saying anything when he sets about uttering the sounds "a thing that is not"?

Theaetetus: That would certainly end our bewilderment.

Plato's point in this passage is that on Parmenides's premises every meaningful assertion is true, implying that apparently false assertions are in fact either true or meaningless.

Our appreciation of Plato point is aided by the following passage in Aristotle (Metaphysics 1051b31-2a5):

As regards the "being" that answers to truth and the "non-being" that answers to falsity, in one case there is truth if the subject and the attribute are really combined, and falsity if they are not combined; in the other case, if the object is existent it exists in a particular way, and if it does not exist in this way it does not exist at all. And truth means knowing these objects, and falsity does not exist, nor error, but only ignorance—and not an ignorance which is like blindness; for blindness is akin to a total absence of the faculty of thinking.

I take it that in this passage Aristotle is saying something like the following: The proposition 'Socrates is Persian', e.g., asserts the existence of
a certain object—viz., a Persian Socrates, and is false because there is no such object.¹ On the other hand, 'Socrates is Greek' likewise asserts the existence of a certain object—viz., a Greek Socrates, but is true because in this case there is such an object. But, if we follow Parmenides and hold that everything exists, then it would seem that the Persian Socrates exists, implying (on the correspondence theory of truth here assumed) that 'Socrates is Persian' is true. On Parmenidean premises, then, the only alternative to this result which Plato can envisage would be to hold that 'Socrates is Persian' is not false but meaningless. In this alternative Theaetetus thinks he sees an 'end to our bewilderment'. (237e) But the Stranger quickly cautions him against this conclusion. (237e) For, as Plato well knows (see 261e-4c), there is a difference between speaking falsely and chattering without meaning.

But before Plato can account for meaningful falsehood, he must make some general remarks about meaning, as follows (261d-3a):

Theaetetus: What are you going to ask me about words?

Stranger: Whether they all fit together, or none of them, or some will and some will not.

Theaetetus: That is plain enough. Some will, some will not.

Stranger: You mean perhaps something like this. Words which, when spoken in succession, signify something, do fit together, while those which mean nothing when they are strung together, do not.

Theaetetus: What do you mean?

¹Elsewhere (Metaphysics 1024b25-30) Aristotle says 'A false account is the account of nonexistent objects, in so far as it is false'.

Stranger: What I supposed you had in your mind when you gave your assent. The signs we use in speech to signify being are surely of two kinds.

Theaetetus: How?

Stranger: One kind called "names", the other "verbs".

Theaetetus: Give me a description of each.

Stranger: By "verb" we mean an expression which is applied to actions.

Theaetetus: Yes.

Stranger: And by a "name" the spoken sign applied to what performs these actions.

Theaetetus: Quite so.

Stranger: Now a statement never consists solely of names spoken in succession, nor yet of verbs apart from names.

Theaetetus: I don't follow that.

Stranger: Evidently you had something else in mind when you agreed with me just now, because what I meant was just this—that these words spoken in a string in this way do not make a statement.

Theaetetus: Naturally.

Stranger: And again, if you say "lion stag horse" and any other names given to things that perform actions, such a string never makes up a statement. Neither in this example nor in the other do the sounds uttered signify any action performed or not performed or nature of anything that exists or does not exist, until you combine verbs with names. The moment you do that, they fit together and the simplest combination becomes a statement of what might be called the simplest and briefest kind.

Theaetetus: Then how do you make a statement of that kind?

Stranger: When one says "A man understands", do you agree that this is a statement of the simplest and shortest possible kind?

Theaetetus: Yes.
Stranger: Because now it gives information about facts or events in the present or past or future; it does not merely name something but gets you somewhere by weaving together verbs with names. Hence we say it "states" something, not merely "names" something, and in fact it is this complex that we mean by the word "statement".

The distinctions which Plato makes in this passage are doubtless taken from the grammarians of his day. But the difficulty which Theaetetus, an immensely clever lad well versed in philosophy, has in following them suggests that philosophers had neglected such distinctions. Indeed, we have some independent evidence for this neglect in the fact that, although the dialogues abound in linguistic analysis, there isn't a trace of it in the pre-Socratics. The elementary character of Plato's grammatical distinctions may thus belie the historically important fact that probably for the first time a philosopher is attempting to resolve ontological problems through linguistic analysis. Moreover, his main point—viz., that a proposition states but does not name something—is echoed by Russell in these words:¹

It is very important to realize ... that propositions are not names for facts. It is quite obvious as soon as it is pointed out to you, but as a matter of fact I never had realized it until it was pointed out to me by a former pupil of mine, Wittgenstein. It is perfectly evident as soon as you think of it, that a proposition is not a name for a fact, from the mere circumstance that there are two propositions corresponding to each fact. Suppose it is a fact that Socrates is dead. You have two propositions: "Socrates is dead" and "Socrates is not dead". ...

There are two different relations, as you see, that a proposition may have to a fact: the one the relation that you may call being true to the fact, and the other being false to the fact. Both are equally essentially logical relations which may subsist between the two, whereas in the case of a name, there is only one relation that it can have to what it names. A name can just

name a particular, or, if it does not, it is not a name at all, it is a noise.

It is important for both Russell and Plato to differentiate propositions from names, since in their view names 'signify being' (261e) and are otherwise meaningless. Whereas, if the state of affairs indicated by a proposition does not obtain, the proposition is not meaningless but false. Plato concedes to Parmenides (as would Russell also) that 'Whenever there is a statement, it must be about something; it cannot be about nothing'. (262e)

How then are true and false statements to be distinguished? Plato answers:

Stranger: I will make a statement to you, then, putting together a thing with an action by means of a name and a verb. You are to tell me what the statement is about.

Theaetetus: I will do my best.

Stranger: "Theaetetus sits"... Now it is for you to say what it is about—to whom it belongs.

Theaetetus: Clearly about me: it belongs to me.

Stranger: Now take another... "Theaetetus (whom I am to at this moment) flies".

Theaetetus: That too can only be described as belonging to me and about me.

Stranger: And moreover we agree that any statement must have a certain character.

Theaetetus: Yes.

Stranger: Then what sort of character can we assign to each of these?

Theaetetus: One is false, the other true.

Stranger: And the true one states about you the things that are (or the facts) as they are.

Theaetetus: Certainly.

Stranger: Whereas the false statement states about you things different from the things that are.
Theaetetus: Yes.

Stranger: And accordingly states things that are-not as being.

Theaetetus: No doubt.

Stranger: Yes, but things that exist, different from things that exist in your case. For we said that in the case of everything there are many things that are and also many that are not.

Theaetetus: Quite so.

Stranger: So the second statement I made about you, in the first place, according to our definition of the nature of a statement, must itself necessarily be one of the shortest possible.

Theaetetus: So we agreed just now.

Stranger: And second it must be about something.

Theaetetus: Yes.

Stranger: And if it is not about you, it is not about anything else.

Theaetetus: Certainly.

Stranger: And if it were about nothing, it would not be a statement at all; for we pointed out that there could not be a statement that was a statement about nothing.

Theaetetus: Quite true.

Stranger: So what is stated about you, but so that what is different is stated as the same or what is not as what is—a combination of verbs and names answering to that description finally seems to be really and truly a false statement. (262a-3d)

As in the Euthydemus (284c) we are said to speak falsely when we say 'what is in a certain way and manner, and not as it really is'. It is false to say 'Socrates wishes Cleinias destroyed', e.g., though of course both Socrates and Cleinias exist, and there are destructive desires. Thus, false propositions are resolved into elements, all of which have being; and yet
the proposition as a whole asserts what is not. How far Plato has come from 
the Euthydemus! There Ctesippus is forced to admit that 'no one says that 
which is not', (284c) the very thing which is denied in the Sophist.

We may measure Plato's achievement in the Sophist against this passage 
from the Cratylus (385b-d):

Socrates: ... You would acknowledge that there is in 
words a true and a false?

Hermogenes: Certainly.

Socrates: And there are true and false propositions?

Hermogenes: To be sure.

Socrates: And a true proposition says that which is, 
and a false proposition says that which is not?

Hermogenes: Yes, what other answer is possible?

Socrates: Then in a proposition there is a true and 
false?

Hermogenes: Certainly.

Socrates: But is a proposition true as a whole only, 
and are the parts untrue?

Hermogenes: No, the parts are true as well as the whole.

Socrates: Would you say the large parts and not the 
smaller ones, or every part?

Hermogenes: I should say that every part is true.

Socrates: Is a proposition resolvable into any part 
smaller than a name.

Hermogenes: No, that is the smallest.

Socrates: Then the name is a part of the true proposit-

Hermogenes: Yes.

Socrates: Yes, and a true part, as you say.

Hermogenes: Yes.
Socrates: And is not the part of a falsehood also a falsehood?

Hermogenes: Yes.

Socrates: Then, if propositions may be true and false, names may be true and false?

Hermogenes: So we must infer.

In this passage, where names and propositions are assimilated, Plato falls far short of the sophistication he displays in the *Sophist*. In his later work he knows that propositions and names do not belong to the same semantic category. It is fallacious then to infer that, if a proposition is true, its terms are as well, just as it is fallacious to infer that, if men are numerous, Socrates is numerous. It is also fallacious to infer that, if there is something which every term in a proposition names, there is something in addition to these things which the proposition itself names, in the absence of which the proposition would be meaningless. Because propositions are not names, we can assert what is not the case (i.e., false) without thereby asserting that there is a name which names nothing. In this fact we have Plato's answer to the Sophist denial of falsehood.

Plato is attempting to find a place for falsehood within an essentially Parmenidean metaphysic. He concedes to Parmenides:

One cannot legitimately utter the words, or speak of that which just simply is not; it is unthinkable, not to be spoken of or uttered or expressed. (238c)

He apparently alludes to these words when he later says:

So far as any contrary of the existent is concerned, we have long ago said good-by to the question whether there is such a thing or not and whether any account can be given of it or none whatsoever. (258e)

Neither Parmenides nor Plato admit that there is a legitimate use for nega-
tive existential claims—i.e., there is never an occasion on which '...does not exist' can be supplied with a term such that it expresses a true proposition. Thus, he says (257b):

When we speak of "that which is not", it seems that we do not mean something contrary to what exists but only something that is different.

'x is not', when true, is always (on this view) elliptical for 'x is different from y' and is never the expression of x's nonexistence.\(^1\) Jowett therefore remarks rightly that in the Sophist Plato anticipates Hegel's 'explanation of "not-Being" as difference',\(^2\) but errs in thinking this desirable.

To satisfy his Parmenidean inclinations, Plato assumed that all terms (both singular and general) are non-empty, and thereby committed himself to the view that no negative existential proposition is true. To understand why Plato should have acquiesced in this view (which is certainly counterintuitive), let us turn briefly to his theory of Forms. 'Any discourse we can have', Plato says (259e), 'owes its existence to the weaving together of forms'. I understand this to mean that language is impossible without general expressions. The forms, according to Plato, are the features of reality which answer to general expressions—i.e., they are properties.

\(^1\)In 'Logical Structure of Plato's Sophist', Review of Metaphysics, vol. 22 (1969), pp. 482-98, van Fraassen cites these very passages (257b and 258e) to show that Plato is not even attempting an analysis of the existential uses of 'to be', but is merely elucidating various incomplete uses—e.g., 'x is [or is not] identical to y' and 'x is [or is not] F'. But Plato clearly intends his analysis to be comprehensive—i.e., to cover 'to be' in all its intelligible uses. At 251c he says 'we want our argument to be addressed to all alike who have ever had anything to say about existence'. In the passages van Fraassen cites Plato has not set aside the complete use of 'to be', perhaps to be analysed on a future occasion: he has scraped it, on the grounds that it is discredited by the paradoxes introduced at 236e-9b.

In the *Euthydemus* (299e-300c) Plato says:

Why, Socrates, said Dionysodorus, did you ever see a beautiful thing?

Yes, Dionysodorus, I replied, I have seen many.

Were they other than the beautiful, or the same as the beautiful?

Now I was in a great quandary at having to answer this question, and I thought that I was rightly served for having opened my mouth at all: I said however, They are not the same as absolute beauty, but they have a beauty present in each of them. ....

Is not the honourable honourable, and the base base [asks Socrates]?

That, he said, is as I please.

And do you please?

Certainly.

In this passage the property of beauty is distinguished from the particulars which instantiate this property, but both the property and the individuals instantiating it are said to be beautiful. That F-ness itself is F is even more clearly asserted in the *Protagoras* (330c-d) than in the *Euthydemus* (300c):

Is there such a thing as justice or not? I think there is.

So do I, he said.

Well, if someone asked you and me, "Tell me, you two, this thing that you mentioned a moment ago--justice--is it itself just or unjust?" I myself should answer that it was just. Which way would you vote?

The same as you, he said.

Then we would both answer that justice is of such a nature as to be just?

He agreed.

1In Plato's language we would say here that the Form of Beauty is distinguished from the various individual things 'partaking' in it.
If, as seems extremely likely, Plato believed that every property is an instance of itself, then in his view there will be no uninstantiated properties. If, moreover, every negative existential claim has the form 'there is nothing which is F', then we cannot assert the nonexistence of anything without contradicting Plato's metaphysics. Thus, his metaphysics prepares him very well indeed for that Parmenidean rejection of non-Being to which, as we saw, he commits himself at 258e.

It must not be supposed that Plato's metaphysics commits him merely to the view that there is a property answering to every general term, while allowing him to say that such a property could be uninstantiated by any individual. It might seem, e.g., that the claim 'there are no unicorns' means for Plato that there are no individual unicorns, although there is a property of being a unicorn. On the contrary, more than realism is involved in Plato's position. For, if we introduce the term 'being an individual unicorn', then the property expressed by these words will be instantiated by an individual, if by anything: and in Plato's view it is instantiated by something. In this case, we have a Form which is also an individual. The distinction between singular and general (individual and property) is thus obviated in Plato's metaphysics. As Aristotle remarks (Metaphysics 1086b10), 'it followed [on Plato's principles] that universals and individuals were almost the same sort of thing'.

In his commentary on the Sophist Taylor claims that Plato's analysis of false statement is inapplicable to propositions about witches because on

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that analysis existential import is assumed for all the terms into which a proposition is analysed. In Plato: The Sophist and the Statesman (London: 1961), p. 68, A. E. Taylor remarks: 'There is certainly a field of enquiry here which Plato has left unexplored'. As we suggested earlier, however, Plato intends his analysis to be comprehensive; and in fact to those who, like Taylor, would object that there are no witches, he can answer that the Form of Witchness is itself a witch, and that consequently the property is not uninstantiated after all.

Plato is thus delivered from the Taylor objection by the assumption that, for every general expression 'F-ness', there is a property of F-ness which is instantiated at least by itself. This assumption, however, leads to contradiction. The property of not being a self-instance, e.g., is a self-instance if and only if it is not. It follows that not every general expression picks out a self-instantiating property. Moreover, a self-contradictory general expression, such as 'round-square', must express an uninstantiated property. Consequently, both Plato's metaphysics and his analysis of false statement are mistaken.¹ (Though the analysis of false state-

¹Though I have said nothing I would wish to retract, I apologize for having dealt so briefly with the theory of Forms. Allow me, then, here to refer to some literature, and make some remarks in anticipation of possible objection. Cornford, F., Plato's Theory of Knowledge (London: 1967); Moravcsik, J., 'Being and Meaning the Sophist', Acta Philosophica Fennica, vol. 14 (1962); Ross, W., Plato's Theory of Ideas (Oxford: 1963); Vlastos, G., 'The Third Man Argument in the Parmenides, as reprinted in: Allen, R., Studies in Plato's Metaphysics (London: 1967). The assumption that there is a property (Form) answering to every general expression seems questioned at 130c-e and then accepted at 135a-d of the Parmenides. According to Ross (p. 168) and Cornford (p. 293), however, in the Politicus (252) Plato declares himself against negative Forms (e.g., the not-Beautiful). But, as Ross and Cornford themselves remark, this is certainly not the view taken in the Sophist, the dialogue with which we are here primarily concerned. Moreover, their interpretation of the Politicus is doubtful; see Moravcsik, p. 72. I refer the reader to Vlastos for the best account of the conceptual difficulties in the theory of Forms.
ment could in fact be separated from its (Platonic) metaphysical background, and made more plausible, this is not a task I will undertake. For by making true negative existential claims impossible, that analysis as it stands helps us to understand Plato's confused treatment of the copula; and here we are more concerned with being than with falsehood.)

1.6 Plato and the Copula: A Commentary on the Sophist 250a-60d

If there is one great issue on which the scholarly interpretation of the Sophist is divided, it is this: Did Plato in 250a-6d distinguish the existential and predicational uses of 'to be'? According to the majority opinion1 (here rejected), he did; according to the minority opinion2 (here adopted), he did not. This is a substantial dispute which cannot be settled merely by attending to Plato's syntax. Syntactically, an elliptical occurrence of 'εἶναι' in its incomplete use is indistinguishable from a non-elliptical occurrence of 'εἶναι' in its complete use. The situation is the same in English. 'I am', e.g., depending upon context, may be (1) short for (say) 'I am wealthy' or (2) an expression of personal existence, as in Descartes's famous argument. The context for Plato's use of 'εἶναι' in the Sophist is a certain body of argument; and it is how we construe that body of argument which determines whether Plato appears in places to distinguish the existential and predicai-

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ional uses of 'to be'.

To refute the view that in the *Sophist* Plato distinguished the existential and predicational uses of 'to be', I cannot do better than to cite Runciman, as follows:¹

[Plato's] failure to distinguish the existential sense as such is clearly demonstrated by the argument of 256d-e, which runs as follows:

Str. For the nature of Difference makes each one of all the kinds different from Being (οὐκ ὄν), and therefore something that is not (οὐκ ὄν); and on this principle we shall be right in speaking of all of them as things which in this sense "are not" (οὐκ ὄντα), and also as things which, since they partake in Being (μετεξῆς τοῦ ὄντος), have being and are (ἐπάλλελοι ἐκ λόγου).

Th. So it seems.

Str. So about each of the Forms there is much that it is and a countless number of things that it is not.

This passage [continues Runciman] is taken by both Cornford and Ackrill to be referring at 256e3 to the existential sense of ὄντα. But that the phrase μετεξῆς τοῦ ὄντος cannot here be the philosopher's formulation of the existential use is shown by the Stranger's next remark. For this makes it clear that it is the copulative sense which is covered by the phrase. The Stranger would be talking nonsense if he said that for each one of the Forms "there are many things that it exists" or "it is existence in many respects". It is in any case not the existence of the Forms which requires to be demonstrated, but the fact that they can both be and not be in the copulative sense. What the Stranger goes on to say (257a) is that Being (οὐ) must therefore be marked off from the other kinds. This is translated by Cornford "Existence". But from the previous sentence it is clear that this is not existence but the Being which each of the Forms can be in many respects. In fact, throughout the discussion there is an assimilation to each other of the existential and copulative senses.

¹*Plato's Later Epistemology*, pp. 84-5. (The quotation which follows includes a translation from the *Sophist* by Runciman, not Cornford.)
Having warned the reader that there are various conflicting ways of viewing the *Sophist*, we will now adopt the critical perspective of Runciman and analyse the argument in the *Sophist* accordingly.

For all his talk against non-Being, Plato recognizes that there is a sense in which we talk about what does not exist. In addition to such *prima facie* falsehoods as 'Socrates is Persian', there are such *prima facie* truths as 'Heracles does not exist'. But, if we can say nothing about what does not exist, then presumably even this proposition would be meaningless, and we would not be able to distinguish the nonexistent Heracles from what exists. For Heracles would not have a character in terms of which he could be identified. How then could we know he does not exist? From such considerations Plato seems to have concluded that things which do not exist cannot be devoid of character (see *Parmenides* 160c-2d). If they were, observes Plato (238c), then we could attribute neither plurality to 'things that are not' nor unity to 'that which is not'. In the oft-quoted fragment which I take as his fundamental premise, however, Parmenides himself speaks of 'things which are not', and thus violates his own prohibition. It is clear then that we do attribute characteristics (e.g., singularity and plurality) to the nonexistent. Thus, Plato says (258c), "That which is not" unquestionably is a thing that has a nature of its own.

We shall understand the supposition that the nonexistent 'has a nature of its own' to mean that, for some empty expression $\alpha$, some proposition of the form $\neg\alpha$ is $\beta$ is true—i.e., to mean that 'Pegasus is wingless' (or some other such proposition) is true, though Pegasus does not exist. The supposition, thus understood, contradicts the following:

\[
(3) \ (\forall x)(\neg\exists x \rightarrow \neg\exists x),
\]
which, as we saw in section 1.2, is entailed by the fundamental Parmenidean premise:

\[ (1) \quad \neg \exists x \exists x \]

Thus, for Plato to establish that 'the nonexistent' has a nature of its own—i.e., for him to establish the denial of (3)—he must refute (1), from which (3) follows.

(1) implies that there isn't anything which does not exist. To argue against it in any straightforward fashion, therefore, one must argue that there exist things which do not exist. This does not seem a very promising line of argument, nor one which anybody would follow. But after citing the saying of Parmenides 'never shall this proved, that things that are not are', Aristotle then adds that to avoid Parmenides's results certain (unnamed) thinkers 'thought it necessary to prove that that which is not is'. (Metaphysics 1089a3-7) This is in fact precisely the course which Plato follows:

We shall find it necessary in self-defense ... to establish by main force that what is not, in some respect has being. ... (241d)

After an argument purporting to reveal 'the real character of "not-being"' (258e), Plato concludes: "What is not' has been found to have its share in existence'.

The argument by which this absurd conclusion is reached is of considerable historical interest since it exploits the existential/predication ambiguity of 'to be'. In the course of his counter-argument against Parmenides, Plato examines several negative predicates—e.g., 'not-beautiful' and 'not-tall'. He rightly concludes that what is not-beautiful or not-tall exists, and has a nature of its own. From this unexceptional remark, however, he

\[ \text{1If this remark were intended only as a refutation of the sophist view that 'a is not-F' entails 'a does not exist' and not also as a step in the refutation of Parmenides, it would not lead Plato into trouble.} \]
then makes the illicit step to 'we have shown that things that are [do not exist], are [do exist] ...'. (258e) In fact, however, all he has shown is that things that are not(-F), are (exist). This, however, was never in doubt for Parmenides,1 and does not imply that anything both exists and does not exist. The contradictory of (1) therefore remains undemonstrated.

Realizing the absurdity of '(∃x)-Ex', Plato tries to make it out that he is not really asserting that there exists something which does not exist. (see 258a-9a) 'When we speak of "that which is not",' he says (257b), 'we do not mean something contrary to what exists but only something that is different'. But at 258d-e he makes it quite clear that he intends to contradict Parmenides's claim 'Never shall this be proved, that things that are not, are'. On our interpretation of this claim (which as we saw is supported by Plato's Parmenides), Plato must assert '(∃x)-Ex' if he is to contradict this claim. Thus, Plato's remarks are worthless as a reply to Parmenides if we construe those remarks as applying only to 'what is not-F' (the Different) and not also 'what is not' in Parmenides's sense (the Nonexistent). The truth of the matter is that, when Plato is trying to make his thesis sound plausible (even to himself), he uses the predicational sense of 'to be'; and then, when he is trying to refute Parmenides, he shifts (unconsciously, I think) to the existential sense. On our interpretation, then, Plato more than Parmenides is guilty of the confusion he is alleged to have recognized and exposed.

In my view Plato made these serious mistakes in handling the concept

1 i.e., on our interpretation, but recall the Kirk and Raven interpretation. Perhaps they would be inclined to treat Plato's argument more sympathetically than I; most commentators are.
of existence because he conflated the ontological paradoxes of Parmenides with the epistemological puzzles of the sophists. When we say 'I know', this is always elliptical for 'I know x'. The absolute construction '...know(s)' is parasitical on the incomplete construction '...know(s)'. In the Euthydemus, as we saw, Plato used this fact to refute the sophist contention that, if a man knows anything, he knows everything. Owing to the incomplete character of 'to know', the proposition 'Socrates knows [x] and does not know [y]', e.g., is not self-contradictory—i.e., Socrates can be both knowing and unknowing. Now, just as he refuted the sophists, so Plato hopes to refute Parmenides. Just as a man may know some things and not others, so he may be some things and not others. Hence:

(a) Things both are and are not.

Plato thinks (a) contradicts the Parmenidean claim that there are no things which are not. In order to make (a) true, however, we must understand its occurrences of 'to be' predicationally, as in 'a man may be [F] and not be [G]'. When (a) is thus understood, however, it does not contradict the Parmenidean claim. Plato refutation therefore fails. The reason for this failure, of course, is that 'to be', understood existentially, is like 'to be gold' or 'to be a man' rather than 'to know' or 'to father': Socrates, e.g., can no more both exist and not exist than he can both be a man and not be a man. This implies that 'x is', understood existentially, is not elliptical for 'x is ___', where '___' is to be filled in with some predicate—say, 'existent'.

Existence then is not a relation which, like fatherhood, a thing

\[1\] But see Quine: 'We may indeed take "(∃x)(x = a)" as explicating "a exists". John Bacon has noted a nice parallel here: just as "a eats" is short for "a eats something", so "a is" is short for "a is something".', 'Existence and Quantification', as contained in Margolis, J., ed., Fact and Existence (Toronto: 1968), p. 3.
may bear to some things and not others. It is for this reason that 'to be', understood existentially, resists analysis in terms of the relational verb 'to be different'.

1.7 The Greek Concept of Being Let us return now to Kahn's view that 'the Greeks did not have our notion of being'. As we have understood Plato, he wrongly assimilates the existential (complete) and predicational (incomplete) uses of 'to be'. According to Kahn, however, the syntactical distinction between the incomplete and complete constructions for 'to be' is often treated by Greek authors 'as of no consequence whatever'. But, as Mill complained, English writers often do the same thing. Though Kahn doubts the firmness of the complete/incomplete distinction even in English, I think Mill rightly thought it a mistake to neglect the distinction. Therefore, I must understand Kahn's point to be that it is permissible to do in Greek what it is not permissible to do in English—viz., assimilate the complete and incomplete constructions of the verb for being. If so, then Plato's argument cannot be fallacious in quite the way I say it is; and the Greeks may well have had a concept of being different from ours.

1Although it makes no sense to say 'a exists F' or 'a does not exist F', it does make sense to say 'a exists at t' or 'a does not exist at t'. Thus, Montague holds in The Ways of Knowing (London: 1925), pp. 110-1, that existence is not a property but a relation between an individual and a moment. From this perspective the same individual could both exist [at t] and not exist [at t']. But we will ignore this way of contradicting Parmenides's claim that nothing can both exist and not exist, except to remark that he, thinking what exists to be sempiternal, would not allow that something which exists at some time could fail to exist at some other time.

2'The Greek Verb "to be" and the Concept of Being", pp. 249-50.

3He even says (with what plausibility I leave the reader to judge): 'Mr. James Mill was, I believe, the first who distinctly characterized the ambiguity [of "to be"], and pointed out how many errors in the received systems of philosophy it had to answer for'. A System of Logic, pp. 50-1
But, if the Greeks had a different concept of being and did not make a firm syntactical distinction between the complete and incomplete constructions of 'είναι', we should expect to see these differences reflected in other Greek authors besides Plato. When we turn to Aristotle, however, we find the appropriate distinction clearly made:

[fallacies] that depend on whether an expression is used absolutely or in a certain respect and not strictly, occur whenever an expression used in a particular sense is taken as though it were used absolutely, e.g. in the argument "if what is not is the object of an opinion, then what is not is": "for it is not the same thing "to be x" and "to be" absolutely. Or again "what is, is not, if it is not a particular kind of being, e.g. if it is not a man". For it is not the same thing "not to be x" and "not to be" at all: it looks as if it were, because of the closeness of the expression, i.e. because "to be x" is but little different from "to be" and "not to be x" from "not to be". (De Sophisticis Elenchis 166b37-8a7)

Just as there were Greek thinkers who wrote about existence as we do, so there were non-Greek thinkers who wrote about existence as Plato did. Fredegisus of Tours (died 819), e.g., wrote:¹

The signification of anything is something that is. But "nothing" signifies something. Therefore, the signification of "nothing" is something that is, i.e., an existing thing.

Thus, Plato was not alone in his odd belief that the nonexistent has 'its share in existence'.

Theology sometimes forced a curious ontology upon Christian philosophers, since they had to account for the appearance of evil in some suitably pious way. Evil, according to many Christian philosophers, is a 'privation' and, as such, does not exist. But the world seems to abound in these 'privations', the ontological status of which is rather mysterious. Perhaps with these

¹As cited (without disapproval, incidently) in Rescher, N., Essays in Philosophical Analysis (Pittsburgh: 1969), p. 84.
Boethius clears up the mystery:

...Anyone [who turns to vice] loses not only his strength but his very being. ...

Perhaps it may strike some as strange to say that evil men do not exist, especially since they are so numerous; but it is not so strange. For I do not deny that those who are evil are evil; but I do deny that they are, in the pure and simple sense of the term. For just as you may call a cadaver a dead man, but cannot call it simply a man, so I would concede that vicious men are evil, but I cannot say, in an absolute sense, that they exist. For a thing is which maintains its place in nature and acts in accord with its nature. Whatever fails to do this loses the existence which is proper to its nature. But you argue that evil men are capable of action. I will not deny, but such capability is the product of weakness, not of strength. For they can do evil acts which they could not have done if they had been able to remain capable of good. And that possibility of doing evil shows clearly that they can do nothing. For, if our earlier conclusion that evil is nothing still stands, it is clear that the wicked can do nothing since they do only evil.

Boethius's supposition that someone could be something (e.g., evil) without existing may sound silly and unworthy of consideration. But in 'Cogito, Ergo Sum: Inference or Performance?', Philosophical Review, vol. 71 (1962), pp. 3-22, Hintikka (who is no fool) objects to the Cogito on the grounds that Descartes, like Hamlet, could be thoughtful without existing.

I suppose that someone could combine the absurdities of Fredegisus with those of Boethius, and conclude that evil, signifying nothing, both exists (Fredegisus's view) and does not exist (Boethius's view). This combination would have the dubious merit of contradicting the Parmenidean premise that -(Ǝx)-Ex. But the truth is, though others have shared Plato's confusions, Greek and non-Greek alike can see that it is a mistake to treat 'nothing' as

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as though it were the name of something.\(^1\)

To my knowledge only one contemporary philosopher has, without hedging, affirmed the denial of \(\neg(\exists x)\neg E_x\), and it is Nicholas Rescher, who says: 'I propose now to adduce reasons for rejecting the statement that all things exist', and proceeds to argue that there exist things which do not exist.\(^2\) Such courage is not often shown in philosophical argument; and Rescher himself, it would seem, came to repent of it. For, when he reprinted this essay, he modified his claim to the following: '...one must reject—in an unqualified form, at any rate—the thesis that all things exist'.\(^3\) Perhaps, if he reprints it again, he will tell us what the qualification is.

Most philosophers who have been disposed to deny \(\neg(\exists x)\neg E_x\) have been more sophisticated than Rescher. To avoid outright contradiction, they have multiplied the senses of 'existence'. Thus, we find E. E. Jones saying:\(^4\)

\[\text{...In order to predicate non-existence in one sphere it is necessary to postulate existence in another. If I say (1) Dragons are non-existent, or (2) Round-squares are impossible, I do of course mean to imply the non-existence and im-}\]

\(^1\)In this connection consider Carroll's Through the Looking-Class (New York: 1966), pp. 80-1: "'I see nobody on the road", said Alice. "I only wish I had such eyes", the King remarked in a fretful tone. "To be able to see Nobody! and at that distance too! Why, it's as much as I can do to see real people by this light!"."


\(^3\)Rescher, N., Topics in Philosophical Logic (Holland: 1968), p. 141.

possibility of Dragons and Round-squares respectively—but it is non-existence and impossibility in a certain region that is neither all-embracing nor even that to which I primarily refer. Unless I refer to something, existent somehow, in some region, what is it of which I predicate non-existence or impossibility (within a given region), what is it which I exclude from those regions to which "non-existent" and "impossible" refer?

Jones rejects the absolutely nonexistent and absolutely impossible. To say that something does not exist or is impossible, in her view, is just to say that it is different from anything existing or possible 'in a certain region'.

In connection with this view (which is certainly reminiscent of Plato's treatment of negative existentials), there are certain obvious difficulties. The twin notions of 'existing in a certain region' and of 'being impossible in a certain region' are left unclear. It is true that, when we say 'Snakes do not exist in Ireland' or 'Honest politics are impossible in the United States', we leave open the possibilities of snakes existing elsewhere and of honest politics being possible elsewhere. But do we commit ourselves to the existence of snakes outside of Ireland or to the possibility of honest politics outside the United States, when we say these things? Certainly not. For, when we say that unicorns do not exist, e.g., we mean that they do not exist anywhere; and, when we say that round-squares are impossible, we mean that they are impossible everywhere.

In the Principles of Mathematics (London: 1903), pp. 449-50, Russell adopts a point of view similar to that of Jones:

Being is that which belongs to every conceivable term, to every possible object of thought—in short to everything that can possibly occur in any proposition. ... Numbers, the Homeric gods, relations, chimeras and four dimensional spaces all have being, for if they were not entities of a kind, we could make no propositions about them. Thus being is a general attribute of everything, and to mention anything is to show that it is.
Existence, on the contrary, is the prerogative of some only amongst beings. ... This distinction is essential, if we are ever to deny the existence of anything. For what does not exist must be something, or it would be meaningless to deny its existence.

The reasoning in these passages from Jones and Russell reflects our confused intuitions about the nonexistent. On the one hand, we are inclined to think that there isn't anything which doesn't exist, since what exists is all there is. On the other hand, we are inclined to think that there are lots of things which do not exist--unicorns, e.g.. To satisfy these contradictory inclinations, 'exists' is given two meanings. According to the first, 'to mention anything is to show that it is'. According to the second, however, it is not the case that everything, including unicorns, exists. By assigning the first meaning to '∃' and the second to 'E', we are able to contradict Parmenides without contradicting ourselves as well, which is of course what Plato hoped to do in asserting '(∃x)-Ex'.

It must be admitted, I think, that the views of Plato and his fellow travellers have very little to recommend them. But it must also be admitted that such terms as 'unicorns' occur in straightforward, intelligible discourse. The semantic theories of the philosophers considered thus far, however, simply were inadequate to explain our employment of empty expressions; and so arbitrary extensions were assigned (in another 'region') to such expressions as 'unicorn', 'round-square', etc. 'A proposition' says Russell, 'is about the subject, and the predicate is what is said about the subject'.¹ Given '(∀x)(¬Ex ↔ ¬Gx)', however, no predicate is true of a nonexistent subject. Therefore, in Russell's sense we cannot frame propositions about what

¹Russell, B., 'On Meaning and Denotation'. This unpublished paper was written between the Principles (1903) and 'On Denoting' (1905).
does not exist. From the fact that there is indisputably a sense in which we do frame propositions about unicorns (if only to deny that there are any), Russell inferred in the Principles that there must be a sense in which unicorns exist. This is the origin of his much lamented ontological extravagance in the Principles.

Thus, the acceptance of \((\forall x)(\neg \exists x \Rightarrow -Gx)\)', coupled with certain assumptions governing what it is to talk about something, forced philosophers into a difficult position. They had to argue either that unicorns, e.g., do exist (in a sense, of course), or else that talk which appears to be about unicorns isn't really about them at all. The philosophers in the Platonic camp accept the first horn of the dilemma. Other philosophers, however, reasoning from the same basic premises, accept the second horn. That is to say, accepting the Parmenidean principle \((\forall x)(\neg \exists x \Rightarrow -Gx)\)', they reason:

By the word paraphrase may be designated that sort of exposition which may be afforded by transmuting into a proposition, having for its subject some real entity, a proposition which has not for its subject any other than a fictitious entity.

Nothing has no properties. A fictitious entity, being, as this its name imports—being, by the very supposition—a mere nothing, cannot of itself have properties: no proposition by which any property is ascribed to it can, therefore, be, in itself and of itself, a true one; nor, therefore, an instructive one. Whosoever of truth is capable of belonging to it cannot belong to it in any character other than that of the representative—of the intended and supposed equivalent and adequate succedaneum—of some proposition having for its subject some real entity.

This point of view is neatly encapsulated in Broad's remark:

Dragons do not exist ... cannot be about dragons; for

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there will be no such things as dragons for it to be about.

Bentham and Broad are thus latter-day Parmenideans because, like Parmenides, they hold that we cannot even talk about what does not exist. Rather than artificially inflate the class of existent objects (as Plato and his fellow travellers would do), these philosophers resort to linguistic paraphrase. In 1905 Russell shifted from the Platonist camp to the Bentham-Broad camp. The Theory of Descriptions is the device by which this transition was achieved. But we are getting ahead of our story.

Before we can accept some proposition A as giving the sense of 'Dragons do not exist', we must have an adequate feeling for the unanalysed sense of 'Dragons do not exist'. Otherwise, we will not be able to judge the extent to which the analysis fits the original proposition. But the semantic assumptions common to the latter-day Parmenideans and the Platonists seem to suggest that 'Dragons do not exist' is sheer nonsense, and therefore that our pre-theoretical grasp of this proposition is illusory. How then can the latter day Parmenideans find a proposition which means the same as one which, on their principles, means nothing at all? Their program is no more free of difficulty than that of the Platonists.

Admittedly, there are some striking differences in the views surveyed all too quickly in this section. Yet we have related these views to a fixed set of presuppositions, which seem to explain both the differences and the similarities in the philosophical speculation concerning existence. This suggests that there is a central core of intuition common to philosophers in the Western tradition at least—and, therefore, that Kahn is wrong in his claim that the Greeks had a concept of existence different from ours. Had he been right in this, perhaps the roots of our own philosophy would have
been inaccessible to us.

1.8 Conclusion Most commentators, unlike ourselves, seem to think
that Parmenides was led to his bizarre conclusions simply by overlooking a
small point (the ambiguity of 'to be') which was later detected by Plato and
set right by him. To this view I can only say the problems surrounding exis-
tence must be sufficiently subtle that these commentators have missed them
altogether. Jowett, e.g., says:¹

The problem of "not-being" appears to us to be one of
the most unreal difficulties of ancient philosophy. ... How could such a [problem] arise at all, much less be-
come of serious importance?

But we have seen that Plato's intended refutation of Parmenides fails, while
our own results in this chapter have been almost wholly negative. We will
see that we must advance many centuries beyond Plato before we can accumu-
late the materials for an analysis of existential propositions which will
deliver us from the paradoxes of Parmenides while yet sparing us from the
still greater paradoxes of Plato.

¹Jowett, B., tr, The Dialogues of Plato, p. 331.
2.0 Introduction  

Aristotle is a difficult philosopher whose meaning is not always clear. My Aristotle is a logical construction out of The Works of Aristotle (Oxford: 1963), 12 volumes. I hope, but do not insist, that my Aristotle does not differ substantially from the historical one. Because of the difficulties involved in interpreting him, it is tempting to leave Aristotle to specialists. But in this philosopher we will find hints of a solution to the Parmenidean paradoxes over nonexistence. Also, in this chapter our problems will begin to take on a precise enough form as to admit of solution. But in this chapter we will not advocate an Aristotelian solution to the Parmenidean paradoxes. For Aristotle (at least on our interpretation), like Plato, fails to achieve consistency in relation to the paradoxes.

2.1 Aristotle's Logic and its Presuppositions  

Like a figure cut from stone, one sees the science of logic emerge gradually from the Organon. After a few uncertain steps, Aristotle confers upon logic the form in which it will remain for two thousand years. To the extent that one is able to follow Aristotle's formation of this science, one sees a mind of incalculable power at work on problems of the first importance. It would be ungracious (and tedious) for us here to belabor the shortcomings of his logical work. It is enough to note its limitations, and then seek the reasons for them in his philosophy.

Let us begin by setting down (as examples) the following propositions:

(A) All men are mortal.

(E) No men are spineless.

(I) Some men are mortal.
Some men are not spineless.

Let us call A-type propositions 'universal affirmative'; E-type, 'universal negative'; I-type, 'particular affirmative'; O-type, 'particular negative'. A proposition exhibiting one of these four forms we will say is a categorical proposition. Aristotle's logic may be thought of as an attempt to characterize the various logical relations holding between categorical propositions. But it is not my aim here to acquaint the reader with Aristotle's logical writings; that I leave to Aristotle himself. Instead, I will simply remind the reader of those portions of Aristotle's logical work in which we are particularly interested.

The (I) and the (O) propositions, understood in their most natural way, plainly assert the existence of men who in the one case (I) are mortal and in the other (O) are not spineless—i.e., existential import is assumed for the subject terms in (I) and (O) propositions. Aristotle holds that the (I) and the (O) propositions are implied, respectively, by the (A) and the (E) propositions. Given this implication (called subalternation), it follows that the existence of men is likewise assumed for the propositions (A) that all men are mortal, and (E) that no men are spineless. Thus, existential import is assumed for the subject terms of categorical propositions.

It is assumed by Aristotle that both (I) and (E) can be converted simply—i.e., it is assumed by Aristotle:

(1) Some men are mortal if and only if (I*) some mortals are men.

(2) No men are spineless if and only if (E*) no spineless thing is a man.

Employing subalternation upon (E*), we see that the existence of (1) mortals and (2) spineless things is assumed. Thus, existential import is also assumed
for the predicate terms of categorical propositions.

Since existential import is assumed for the terms in categorical propositions, it follows that no term in such a proposition as it is used in a syllogism applies to everything. This we may demonstrate as follows: To each general expression 'F' we assign a class of objects, Z, consisting of all and only those things which are F. Z is the extension of 'F'. Employing the terminology of set theory, we may characterize this class as follows:

\[ Z = \{x/Fx\} \]

i.e., Z is the class of objects such that a \( \in Z \) if and only if 'a is F' is true. From the general expression 'F' we may form the general expression 'non-F', to which we assign the following extension:

\[ Z^* = \{x/-Fx\} \]

i.e., \( Z^* \) is the class of objects such that a \( \in Z^* \) if and only if a is not in the extension of 'F'. Since Aristotle excludes empty general expressions from syllogisms, it follows on his view that both \( Z \) and \( Z^* \) are non-empty if they occur in syllogisms, and therefore that 'F' does not apply to everything if it occurs in a syllogism.

The assumption that general expressions do not apply to everything is necessary to validate certain traditional inferences in which contraposition is involved. Contraposition, e.g., guarantees the following equivalences:

1. No men are spineless if and only if (0*) some non-spineless thing is a man.

2. All men are mortal if and only if (A*) all non-mortal are non-men.

Employing subalternation upon (A*), we see that the term 'non-mortal' is instantiated—and, hence, that the term 'mortal' does not apply to everything. Given (0*), it follows that the term 'non-spineless thing' is also instanti-
ated—and, hence, that the term 'spineless' does not apply to everything.

Having surveyed the assumptions involved in Aristotle's logic, we may now briefly consider its adequacy as a logical system. The most popular view today is that it is formally inadequate. A system is formally adequate only if any matter of extralinguistic fact which must be known before an inference can be made shall be stated as a premise of that inference.

Aristotle accepts subalternation as a valid form of immediate inference. He explicitly says:

...when we have shown that a predicate belongs in every case, we shall also have shown that it belongs in some cases. (Topica 109a2-5)

In this passage Aristotle is committing himself explicitly to the inference:

if

(1) Every S is P,

then

(2) Some S is P.

Today, we would symbolize (1) and (2), respectively, as follows:

(1') (∀x)(Sx → Px)
(2') (∃x)(Sx & Px)

As everyone knows, the inference from (1') to (2') is not formally valid; in modern systems this case of subalternation is replaced by the following mediate inference:

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2 Ibid., p. 419.

3 An inference is immediate if it proceeds from a single premise.

4 An inference is mediate if it proceeds from more than one premise.
if (1') (∀x)(Sx → Px)
and (1'') (∃x)Sx,
then (2') (∃x)(Sx & Px).

In connection with the validity of syllogistic reasoning Aristotle does not discuss the question of existential import for the terms in categorical propositions. Consequently, there is room for scholarly controversy as to how these propositions are to be understood when they occur in syllogisms or in immediate inferences. But, if we allow (1') and (2') to stand, respectively, as adequate expressions of (1) and (2), then there can be no doubt that Aristotle's system is formally inadequate. In Aristotle's modern critics, however, often display a certain insensitivity to the philosophical stumbling blocks which logicians before Frege faced in connection with ontological questions.

In order to preserve subalternation as a valid immediate inference, Aristotle must exclude empty general terms from the language in which this inference holds. But it is, of course, open to Aristotle to view this fact as a limitation on the scope of syllogistic logic, and to allow the possibility of there being empty general terms in natural languages and in more comprehensive logical systems. But this is not what he does; instead, he repeatedly (see, e.g., Analytica Priora 68b12) tells us that syllogistic reasoning suffices to prove all our derivative beliefs not founded upon induction. He thus makes very strong, and unjustified, claims for the adequacy of his system. Let us now note the state of philosophy which allowed Aristotle to acquiesce in his unsatisfactory logical results.

1It is perfectly possible, of course, that Greek logicians did not aim at 'formal adequacy' and would not have considered it important to achieve it; this is a matter for historians. Formal adequacy is very important for our purposes, particularly in connection with Frege's quantification theory and such inferences as existential generalization.
In the *Phaedo* Plato says that the soul is pre-existent, and that in a prior life we acquire our understanding of the essential nature of F-ness through an acquaintance with the Form of F-ness. (*Phaedo* 75c-e) Aristotle, of course, will have none of this; he says (*Analytica Posteriora* 97b15-20):

If we were inquiring what the essential nature of pride is, we should examine instances of proud men we know of to see what, as such, they have in common; e.g., if Alcibiades was proud, or Achilles and Ajac were proud, we should find, on inquiring what they all had in common, that it was intolerance of insult.

In Aristotle's view we cannot learn the essential nature of F-ness except through seeing that characteristic exhibited in particulars. 'A "definition"', he says (*Topica* 101b35), 'is a phrase signifying a thing's essence'. Thus, his belief that we cannot learn the essential nature of F-ness except through its instances may have prompted him to believe that every term is instantiated, since otherwise its meaning would be unknowable. If 'F-ness' were not available to us in rational discourse unless '(∃x)Fx' were true, then to validate subalternation it would not be necessary to state as a separate premise of 'extralinguistic fact' that there are F's; for instantiation would then be a presupposition the failure of which would suffice to make 'F' meaningless.

Aristotle says that before we can inquire into a thing's nature we must ascertain that it exists. (*Analytica Posteriora* 89b30-5) 'No one', he says (*Analytica Posteriora* 92b5), 'knows the nature of what does not exist'. He also says:

...clearly, in just the same way we cannot apprehend a thing's definable form without apprehending that it exists, since while we are ignorant whether it exists we cannot know its essential nature. (*Analytica Posteriora* 93a17-21)
...to search for a thing's essential nature when we are unaware that it exists is to search for nothing. (Analytica Posteriora 95a27-8)

Aristotle's point in these passages may just be that we cannot 'come to grasp universals except through induction' (Analytica Posteriora 81b3-4), so that we could never come to grasp an uninstantiated universal. If this is his point, however, we may ignore it, since it is based upon a discredited theory of concept formation.¹

But there is a way of viewing his claim that to search for the nature of what does not exist is 'to search for nothing' which does not link it with his discredited theory of concept formation, and that is to link it instead with the Parmenidean claim that \((\forall x)(\neg \exists x \rightarrow \neg Cx)\). "What is not", Aristotle says in De Generatione et Corruptione 318a16-7, 'is neither a thing, nor possessed of a quality, nor in any place'. Here at least Aristotle seems to be accepting the Parmenidean premises from which he could conclude that we cannot know the nature of the nonexistent because it has no nature.

Unfortunately, Aristotle does not discuss helpfully the problem of empty general terms. He says (Metaphysica 1007b27-30): we 'must predicate of every subject the affirmation or the negation of every attribute'. But we are concerned with the case where the subject-term does not pick out a subject-matter (e.g., as in 'unicorns are F'). Given any pair of attributes, F and not-F', is it true that unicorns possess the one or the other? If so, how are we to reconcile this view with Aristotle's claim that "What is not" is ... not possessed of a quality?²

¹Aristotle's theory of how we form general concepts is akin to that of Locke. For an effective criticism of Locke's theory, see Bennett, J., Locke, Berkeley, Hume (Oxford: 1971), pp. 11-20.
I believe that for Parmenidean reasons Aristotle rejected empty general terms as meaningless, and that, therefore, he would not have viewed the exclusion of such terms from the syllogism as in any way limiting the scope of his logical system. But to best see his dependence upon the Parmenidean mode of thinking we must turn from his treatment of categorical propositions to his puzzling discussions of singular propositions.

2.2 Logical Truth and Singular Propositions

In Aristotle's logic, if a term may appear in the subject position of a premise or conclusion, then it may also appear in the predicate position of a premise or conclusion. We may, e.g., move back and forth between 'Some mortals are men' and 'Some men are mortals'. General expressions such as 'mortals' and 'men' are, of course, ideally suited for this kind of interchange of position in sentences. Singular terms are not. In Aristotle's view, singular terms are the names of substances; notice how he defines 'substance' ( Categoriae 1b12-4):

Substance, in the truest and primary and most definite sense of the word, is that which is neither predicable of a subject nor present in a subject; for instance, the individual man or horse.

The consequences of this definition are evident at once. No proposition containing a singular term may appear as a premise or conclusion in a syllogistic demonstration. Syllogistic demonstration is the only sort of logical proof Aristotle thought possible. Therefore, he has excluded propositions containing singular terms from the class of propositions he thought logically demonstrable.

Aristotle's system of syllogistic was quickly extended to include singular propositions, as if he had merely forgotten to cover this case. As early as the first century AD we find Sextus Empiricus giving the following
as an instance of 'the so-called "categorical" syllogism, which is chiefly used by the Peripatetics':

1

(1) Socrates is a man.
(2) Every man is an animal.
(3) Therefore, Socrates is an animal.

But, of course, a 'categorical' syllogism contains only A, E, I, O propositions, of which 'Socrates is a man' is not one. In his writings Aristotle deliberately refrains from giving such 'instances' of syllogisms.

Aristotle did not simply inherit his logic from others but rather created the first logical system. Therefore, let us examine his concept of logical truth to understand why he thought it proper to exclude singular propositions from the class of logical truths.

In Analytica Posteriora (75b20-30) Aristotle writes:

If the premises from which the syllogism proceeds are commensurately universal, the conclusion of such demonstration--i.e., demonstration in the unqualified sense--must be eternal. Therefore no attribute can be demonstrated nor known by strictly scientific knowledge to inhere in perishable things. The proof can only be accidental because the attribute's connection with its perishable subject is not commensurately universal but temporary and special. If such a demonstration is made, one premise must be perishable and not commensurately universal (perishable because only if it is perishable will the conclusion be perishable; not commensurately universal, because the predicate will be predicable of some instances of the subject and not of others; so that the conclusion can only be that a fact is true at the moment--not commensurately and universal.

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2In Aristotle's Syllogistic (Oxford: 1972), pp. 5-7, Lukasiewicz errs slightly in saying that in the Analytica Priora Aristotle quotes no argument containing singular propositions; at 70a16-20 he does--an invalid one in Da-repti. It remains true that Aristotle made a conscious effort to exclude singular propositions from the syllogism.
Despite an occasionally ill-chosen phrase, Aristotle's logical intuitions in this passage are in accord with ours. Connections which hold only sometimes or accidentally (i.e., not 'communsurately universal') cannot be demonstrated logically. Therefore, logic will not suffice to show that a certain contingent thing will be thus and so. 'Demonstrative knowledge', he says (Analytica Posteriora 75al1-2), 'must be knowledge of a necessary nexus'. Therefore, 'the truth obtained by demonstration will be necessary'. (Analytica Posteriora 73a20-2)

Demonstration in Aristotle's view has only to do with essence; he writes:

Of accidents that are not essential according to our definition of essential, there is no demonstrative knowledge. (Analytica Posteriora 75al8-20)

There is a universality to logical truths which is implicit in the notion of essence; recognizing this, Aristotle writes (Analytica Posteriora 79a27-9):

essence must have a universal character: e.g. man is not two-footed animal in any qualified sense, but universally.

In stressing the universal character of essence, Aristotle signals his rejection of what Quine calls¹ 'Aristotelian essentialism'. Though occasionally careless, Aristotle expresses his considered opinion at Metaphysica 1030a10-2:

Nothing, then, which is not a species of a genus will have an essence.

Individuals, then, not being species, will not have essences. I take this to mean that no proposition of the form

\[ \Box y \text{ is } \beta. \]

¹'subject', he says in Word and Object (Cambridge, Mass.: 1960), p. 199, 'to contradiction by scholars, such being the penalty for attributions to Aristotle'.
is true, where \( v \) is a singular term. It is not difficult to see why Aristotle held that propositions of this form are untrue. 'A "definition"," he says at *Topica* 102a1, 'is a phrase signifying a thing's essence'. Things designated by indefinable terms then will not have essences. After dismissing the the possibility of defining (the names of) non-eternal individuals, Aristotle observes (*Metaphysica* 1040a27-b4):

> The impossibility of defining individuals escapes notice in the case of eternal things, especially those which are unique, like the sun or the moon. For people err not only by adding attributes whose removal the sun would survive, e.g. "going round the earth" or "night-hidden" (for from their view it follows that if it stands still or is visible [at night], it will no longer be the sun; but it is strange if this is so; for "the sun" means a certain substance); but also by the mention of attributes which can belong to another subject; e.g. if another thing with the stated attributes comes into existence, clearly it will be a sun; the formula is therefore general. But the sun was supposed to be an individual, like Cleon or Socrates.

Definitions are generic, and therefore of (terms for) species, not (terms for) individuals.

Taken together, Aristotle's various views commit him to the thesis that the foundation of all demonstration is the relation of a species to its genus. Therefore, the relation of an individual to its properties will not be a matter for logical demonstration—i.e., no proposition of the form

\[
v \text{ is } \beta
\]

will be logically true. It is for this reason, I think, that Aristotle excludes singular propositions from the class of logical truths; he writes:

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1As cited by Hintikka in *Time and Necessity* (Oxford: 1973), p. 76. Hintikka's commentary (pp. 62-93) supports mine and explains certain aspects of this passage (*Metaphysica* 1039b27-40a5) which, though important, I must ignore (for want of space).
Since substance is of two kinds, the concrete thing and the formula (I mean that one kind of substance is the formula taken with the matter, while another kind is the formula in its generality), substances in the former sense are capable of destruction (for they are capable also of generation), but there is no destruction of the formula in the sense that it is ever in course of being destroyed (for there is no generation of it either; the being of house is not generated, but only the being this house), but without generation and destruction formulae are and are not; for it has been shown that no one begets nor makes these. For this reason, also, there is neither definition of nor demonstration about sensible individual substances, because they have matter whose nature is such that they are capable both of being and of not being; for which reason all the individual instances of them are destructible. If then demonstration is of necessary truths and definition is a scientific process, and if, just as knowledge cannot be sometimes knowledge and sometimes ignorance, but the state which varies thus is opinion, so too demonstration and definition cannot vary thus, but it is opinion that deals with that which can be otherwise than as it is, clearly there can neither be definition of nor demonstration about sensible individuals. For perishing things are obscure to those who have the relevant knowledge, when they have passed from our perception; and though the formulae remain in the soul unchanged, there will no longer be either definition or demonstration. And so when one of the definition-mongers defines any individual, he must recognize that he definition may always be overthrown; for it is not possible to define such things. (Metaphysics 1039a20-40a8)

It is evident from the above considerations that Aristotle's treatment of essence differs markedly from that commonly attributed to him; in A History of Western Philosophy (New York: 1964), pp. 200-1, Russell (e.g.) writes:

The notion of essence is an intimate part of every philosophy subsequent to Aristotle until we come to modern times. It is, in my opinion, a hopelessly muddle-headed notion, but its historical importance requires us to say something about it.

The "essence" of a thing appears to have meant "those of its properties which it cannot change without losing its identity". Socrates may be sometimes happy, sometimes sad; sometimes well, sometimes ill. Since he can change these properties without ceasing to be Socrates, they are
This account overlooks the facts that (1) Aristotle agrees that 'essence' concerns the use of words: 'A "definition",' he says, 'is a phrase signifying a thing's essence'; and (2) Aristotle held that individuals such as Socrates do not have essences.

Of course, not every writer has abused the text in the way Russell does. For example, Lukasiewicz, always a careful historian, notes that Aristotle has excluded singular terms from syllogisms. He sees in this, however, a mistake; in Aristotle's *Syllogistic* (p. 6) he writes:

> It is further not correct to say that individual or singular terms, like "Callias" cannot be truly predicated of anything else. Aristotle himself gives examples of true propositions with a singular term, as "That white object is Socrates" or "That which approaches is Callias" [see *Analytica Prima* 43a33], saying that such propositions are "incidentally" true. There are other examples of this kind which are not merely incidentally true, as "Socrates is Socrates".

This objection takes us right to the heart of things. As Lukasiewicz says, Aristotle concedes that in an *incidental* sense a singular term may be predicated of something, as when we say 'That white object is Socrates or that which approaches is Callias'; see *Analytica Prima* 43a33. These propositions, however, are obviously contingent, and therefore not demonstrable. But Lukasiewicz cites what he takes to be a *necessary* proposition—viz., 'Socrates is Socrates'—containing a singular term as predicate. How would Aristotle handle this apparent counter-example to his thesis that propositions about individuals are never necessary? To answer this question we must look again at the Parmenidean background to Aristotle's speculation.
As we saw, in *De Generatione et Corruptione* Aristotle appears to commit himself to the Parmenidean principle that \((\forall x)(-Ex \rightarrow -Gx)\), i.e., if something does not exist, it possesses no characteristics at all. On this view, therefore, if Socrates had not existed, the proposition 'Socrates is Socrates' would have been untrue, since Socrates would not have possessed the characteristic of being Socrates. It is, moreover, a contingent matter for Aristotle (see *Metaphysica* 1039a20-40a8) whether Socrates exists, and therefore a contingent matter whether he is self-identical.

That Aristotle would have responded to Lukasiewicz in the manner I suggest is, I think, confirmed by the following passage (*Categoriae* 13b14-35):

"Socrates is ill" is the contrary of "Socrates is well", but not even of such composite expressions is it true to say that one of the pair must always be true and the other false. For if Socrates exists, one will be true and the other false, but if he does not exist, both will be false; for neither "Socrates is ill" nor "Socrates is well" is true, if Socrates does not exist at all.

In the case of "positives" and "privatives", if the subject does not exist at all, neither proposition is true, but even if the subject exists, it is not always the fact that one is true and the other false. For "Socrates has sight" is the opposite of "Socrates is blind" in the sense of the word "opposite" which applies to possession and privation. Now if Socrates exists, it is not necessary that one should be true and the other false, for when he is not yet able to acquire the power of vision, both are false, as also if Socrates is altogether non-existent.

But in the case of affirmation and negation, whether the subject exists or not, one is always false and the other true. For manifestly, if Socrates exists, one of the two propositions "Socrates is ill", "Socrates is not ill", is true, and the other false. This is likewise the case if he does not exist; for if he does not exist, to say that he is ill is false, to say that he is not ill is true. Thus it is in the case of those opposites only, which are opposite in the sense in which the term is used with reference to affirmation and negation, that the rule holds good, that one of the pair must be true and the other false.
I take it that Aristotle is arguing somewhat as follows: Given the predicates $F$ and non-$F$, an existent (particular) subject $a$ must be either $F$ or non-$F$. But, if $a$ does not exist, then (since it is not anything) it is neither $F$ nor non-$F$. Thus, in that event the propositions '$a$ is $F$' and '$a$ is non-$F$' are both false. But this does not violate the firmest of all first principles ... that it is impossible for the same thing to belong and not to belong to the same thing at the same time in the same respect. \textit{(Metaphysics 1005b19-23)}

For we must distinguish the assertion that something possesses a certain negative predicate from the denial that it possesses the positive correlative to that predicate—i.e.,

\begin{enumerate}
\item $a$ is non-$F$
\item it is not the case that $a$ is $F$.
\end{enumerate}

(1) is false if $a$ does not exist; for, if $a$ does not exist, it cannot be non-$F$, since in that event it isn't anything. Whereas, (2) is true if $a$ does not exist; for, if $a$ does not exist, then (being nothing at all) it is not $F$; and in that event it is not the case that it is $F$. This passage \textit{( Categoriae 13b14-35)} clearly presupposes the parmenidean principle that $(\forall x)(\neg Ex \rightarrow \neg Gx)$.

2.3 Aristotle on 'Exists' \textit{In Metaphysics 1089a1-25} Aristotle discusses the parmenidean claim

\begin{enumerate}
\item $(\exists x)\neg Ex$.
\end{enumerate}

His discussion is obscure, but it is at least clear that he rejects Plato's view in the \textit{Sophist} that things consist of Being and non-Being—i.e., that there are things which are not. But it is perhaps not altogether clear how Aristotle would resolve the problems arising out of Parmenide's philosophy;
and, as we will now see, these problems have a special significance for Aristotle.

In *Analytica Priora* 43a35-43 Aristotle remarks that demonstrations usually concern neither individuals nor terms of the greatest generality, but 'whatever lies between these limits'. We noticed earlier that Aristotle cannot use in syllogisms terms having universal application. Aristotle does not to my knowledge say that no general expression applies to everything; but at *Metaphysics* 998b22-7 he does, according to Bochenski in *Ancient Formal Logic* (Amsterdam: 1963), p. 34, argue for what is nearly the same thing—viz., that there is no universal class. Therefore, Aristotle is under some conceptual pressure to exclude propositions of the form:

\[(\forall \mu \forall \nu)\]

As it happens, the Parmenidean proposition

\[(2) (\forall x)Ex\]

is of the excluded form. Since, however, Aristotle does not believe that there are things which do not exist, he cannot assert the denial of (2). Consistency, then, demands that he analyse 'exists' in a way which commits him neither to the assertion nor to the denial of (2); and he does in fact offer such an analysis (*Metaphysics* 998b22):

It is not possible that either unity or being should be a single genus of things; for the differentiae of any genus must each of them have being and be one.

Aristotle refuses to accept 'exists' as an independent general term which, like (say) 'animal', has its own genus; 'exists', he says, must always be used with a generic expression.

In the *Eudemian Ethics* 1217b25-35, Aristotle writes that the good has many senses, as numerous as those of being. For being, as we have seen, is divided into many parts. Notice that proposition (2), the Parmenidean claim,
is of the excluded form. Since, however, Aristotle does not believe that there are things which do not exist, he cannot assert the denial of (2). Consistency, then, demands that he analyse 'exists' in a way which commits him neither to the assertion nor to the denial of (2); and he does in fact offer such an analysis (Metaphysics 998b22):

> It is not possible that either unity or being should be a single genus of things; for the differentiae of any genus must each of them have being and be one.

Aristotle refuses to accept 'exists' as an independent general term which, like (say) 'animal', has its own genus; 'exists', he says, must always be used with a generic expression.

In the Eudemian Ethics 1217b25-35, Aristotle writes:

> ...the good has many sense, as numerous as those of being. For being, as we have divided it in other works, signifies now what a thing is, now quality, now quantity, now time, and in addition it sometimes consists in being changed, sometimes in effecting change; and the good is found in each of these modes, in substance as mind and God, in quality as justice, in quantity as moderation, in time as opportunity, while as example of it in change we have that which teaches and that which is being taught. As then being is not one in all that we have mentioned, so neither is good; nor is there one science either of being or of the good.

Here Aristotle says that there can be no single science of being or of goodness, since there is no one character shared either by all existent things or by all good things, the nature of which we might investigate. Thus, he says (Metaphysica 992b17-20):

> In general, if we search for the elements of existing things without distinguishing the many senses in which things are said to exist, we cannot find them.

Concerning the meaning of 'good', he writes (Topica 107a5-10):

> "good" in the case of food means "productive of pleasure", and in the case of medicine "productive of health", whereas as applied to the soul it means to be of a certain quali-
ty, e.g. temperate or courageous or just: and likewise also, as applied to "man".

Here it is maintained that different things are said to be good in different senses according to the kinds of things they are. Thus, the question 'What is it for something to be good?' is given up in favor of the question 'What is it for an F to be good?', where 'F' stands for some generic expression.

Our concern, however, is not with Aristotle's analysis of moral terms; let us turn immediately to his analogous treatment of 'exists'. At Metaphysics 1042b12-3a2 he tells us that to ask, e.g., whether a threshold exists is to ask whether there is something in such and such a position; for us to ask whether ice exists is to ask whether there is something which has been solidified in such and such a manner. And in De Anima (415b13) he says: 'for living things, to be is to be alive'. Thus, the question 'What is it to exist?' is given up in favor of the question 'What is it for an F to exist?'

At Metaphysics 1053b26-7, he says: 'Clearly we must in every category ask ... what the existent is, since it is not enough to say that its nature is to exist'.

We are now in a position to state Aristotle's answer to Parmenides; and it is as follows: the expression 'exists', not being a generic term, hasn't an extension of its own. Consequently, existence is not a property shared by everything, nor yet a property which only some things possess. Therefore, both

(2) (∀x)Ex

and its denial are rejected by Aristotle. Allowable existential questions always take the form: 'Is there [or is there not] something which is F?'

The question 'Is there something which is F?' is general, whereas the
question 'Is Socrates bald?' (e.g.) is singular. We will answer the first
question affirmatively if the general proposition 'there are F's' is true;
we will answer the second question affirmatively if the singular proposition
'Socrates is bald' is true. Aristotle's answer to Parmenides may therefore
be understood to assume the following thesis: every existential question,
properly framed, is general; and every existential proposition, properly
analysed, is general. In connection with this thesis the following passage
from Kahn is important:¹

In early Indo-European including classic Greek, there
was no verb to exist, and all existential sentences are
formed by the ordinary is. In Greek the gods exist or
there is no Zeus is expressed literally as The gods are
and Zeus is not: εἶναι θεοί, οὐκ εἶναι Ζεὺς. The philoso-
pher may or may not be surprised to learn that such ty-
ically existential sentence—what I call here "pure exis-
tentials"—which assert or deny the existence of a de-
finite individual or a definite sort of individual, do
donot occur in the earliest texts. Thus there are no such
sentences in Homer. The earliest pure existentials at-
tested in Greece are from the period of the Sophists,
and they are nearly always concerned with the existence
of the gods. Existential sentences of the form N is or
N is not arise almost as a technical use which seems to
be the result of philosophic speculation and theologi-
cal controversy.

But, of course, even if 'Zeus does not exist' arose as a technical use, it
is now firmly implanted in our language. If we are to treat every existenti-
al proposition as general, we must explain what in general terms is meant by
this proposition. Though I won't argue for it in this chapter, I believe that
Aristotle's thesis—viz., that existential propositions are always general—
is true of English. I believe, moreover, that this is not an incidental
fact about how we happen in English to express existential claims. I will

argue that the formal languages using our concept of existence also exclude
singular existential propositions.

Pascal claimed that, though ignorant of God's (general) characteristics, he was at least sure of His existence; others have said this too. If Pascal were right, it would be hard to explain 'God exists' as a general proposition, since we would not know a Divine characteristic the instantiation of which would fix the truth-value of 'God exists' for us. But I think we can see that Pascal is wrong. What evidence could we have for the existence of a thing whose characteristics we did not know? If someone asked us: 'Is there a ___?' but refused to tell us the salient properties of the ___, how would we know what to look for? Perhaps, the generality enters existential propositions because of how we identify things—viz., in terms of their general characteristics. But we must ask: is it a contingent fact about human psychology that we so identify things, or would God Himself have to resort to such means in locating things? This is not a question I am prepared to answer, but upon its answer depends the status (logical or empirical) of our thesis that existential claims are always general.

Let us conclude this section with the observation that we cannot but marvel at the fact that a mere two centuries separates Aristotle's work from that of Thales, with whom philosophy unpromisingly originated when he observed (falsely) that 'All is water'. Whether we agree with Aristotle's solution to Parmenides, we must at least appreciate its sophistication. In treating every existential proposition as general, Aristotle implicitly rejects 'exists' as a predicate of individuals; this frees him of

\[(2) \ (\forall x)Ex\]

and all that it entails.
2.5 **Mistakes Eminent Philosophers Have Made**  

To illustrate the difficulties which the concept of existence poses for philosophers, I will conclude this chapter with a few examples (selected from a large fund) of how this concept has occasionally been mishandled.

1) Consider the following passages from the *Categories*:

"Socrates is ill" is the contrary of "Socrates is well", but not even of such composite expressions is it true to say that one of the pair must always be true and the other false. For if Socrates exists, one will be true and the other false, but if he does not exist, both will be false; for neither "Socrates is ill" nor "Socrates is well" is true, if Socrates does not exist at all. (13b14-9)

Take the proposition "Homer is so-and-so", say "a poet"; does it follow that Homer is, or does it not? The verb "is" is here used of Homer only incidentally, the proposition being that Homer is a poet, not that he is, in the independent sense of the word. (21a25-30)

In the first passage Aristotle commits himself to the view that any attribution to a singular subject implies the existence of that subject, whereas in the second passage he says that 'Homer is a poet' does not imply that Homer exists.¹

2) In *Dialogues Concerning Natural Religion*, pt IX, Hume says: 'Whatever we conceive as existent, we can also conceive as nonexistent'. But, as Shaffer points out,² this doctrine is 'flatly contradictory' of what is said in *A Treatise of Human Nature* (Oxford: 1888), p. 66: 'Whatever we conceive, we conceive to be existent'. In the latter quotation Hume wants to treat 'exists' as a vacuous predicate which, like 'self-identical', applies to

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everything; in the former, he wants to treat it as a predicate which, unlike 'self-identical', may properly be withheld from subjects.

(3) In his Logic Hillebrand maintains that "All is B" does not imply that A exists'. But it is difficult to reconcile this view with his claim that, 'In the acceptance of A the idea of A's existence is included'.

(4) John Stuart Mill is another philosopher whose views lead him into ontological difficulties. In Mill's case, however, the conflict is particularly striking, since he was not one to cloak absurdity in obscure language which left his intent in doubt. In A System of Logic, p. 50, he writes:

In the proposition, Socrates is just, it may seem to be implied not only that the quality just can be affirmed of Socrates, but moreover that Socrates is, that is to say, exists. This, however, only shows that there is an ambiguity in the word is; a word which not only performs the function of the copula in affirmations, but has also a meaning of its own, in virtue of which it may itself be made the predicate of a proposition. That the employment of it as a copula does not necessarily include the affirmation of existence appears from such a proposition as this: A centaur is a fiction of the poets; where it cannot possibly be implied that a centaur exists, since the proposition itself expressly asserts that the thing has no real existence.

Thus, Mill wants to maintain that, when we say (e.g.) 'Socrates is just', our words do not imply that Socrates exists, since 'exists' is an independent predicate which, like any other, we sometimes withhold from subjects to which other predicates apply. However plausible this view may seem in itself, it is not one which Mill can consistently maintain; for elsewhere in A System of Logic (p. 73) he says:

1As cited in Jones, E., Review of Hillebrand's Die neuen Theorien der Kategorischen Schlusse, Mind, vol. 3 (1893), pp. 276-7; Jones points out the apparent inconsistency in Hillebrand.
No [essential proposition] can be reckoned such which relates to an individual by name, that is, in which the subject is a proper name. Individuals have no essences. Therefore, the predication of justice to Socrates must be accidental, since, unlike Russell, Mill treats 'Socrates' as a genuine proper name. However, Mill also believes (p. 73) that 'All accidental or non-essential affirmation does imply the real existence of the subject', which contradicts the original supposition that 'Socrates is just' does not imply that he exists.

In the cases of Mill and Aristotle it is particularly clear that they wish, in places, to hold that \( \alpha \text{ is } \beta \) does not entail \( \alpha \text{ exists} \). That is to say, against Parmenides they wish to hold that the predicational use of 'to be' is independent of its existential use. Otherwise, we would not be able to frame propositions about what does not exist. As Aristotle observes:

\[
\text{...But in the case of that which is not, it is not true to say that because it is the object of opinion, it is; for the opinion held about it is that it is not, not that it is. (Categories 21a30-4)}
\]

In this passage it looks as though Aristotle is simply helping himself to a view which it would be convenient not to contradict—viz., that we can say something (i.e., attach some predicates) to what does not exist. The fact that we are thinking about Pegasus, e.g., surely does not imply that he exists. Surely, we can at least say that Pegasus is a fiction, and do so truthfully with implying that he exists; see Topica 121a10-b10 and De Sophisticus Elenchis 167a1-7.

Aristotle does, however, prepare us for the anti-Parmenidean conclusion he reaches in Categories 21a25-34. At De Interpretatione 21a12-5 he discusses the propositions:

(1) A man is a good shoemaker.

(2) A man is good.
From his discussion of these propositions he clearly intends us to see that, when certain expressions (such as 'good') are used as parts of larger expressions (such as 'good shoemaker'), their use in these larger expressions is often independent of their use alone. Thus, (1) does not entail (2). For (1) means that someone is skillful at making shoes, whereas (2) means that someone is virtuous; and a skillful shoemaker may well not be virtuous. In De Sophisticus Elenchis (166b35-7a2) Aristotle appears to reason somewhat as follows: In its predicational context '...is...', the expression 'is' has a distinct meaning from its meaning in the existential context '__is'. Therefore, from the proposition 'Homer is a poet' (e.g.) we cannot infer 'Homer is'—just as, owing to the ambiguity of 'good', we cannot infer that a man is good from the fact that he is a good shoemaker.

The thrust of this discussion seems to be that Parmenides was led to his paradoxes through the neglect of the existential/predicational ambiguity of 'to be'. But, as we have already seen, this is not so. Moreover, Aristotle accepts enough of the Parmenidean position¹ to be led into contradiction when he tries to allow for discourse about the nonexistent; hence, the conflict between Categoriae 13b14-9 and 21a25-30.

2.6 Conclusion There is ample room for controversy over what Aristotle's various pronouncements on being mean.

We have seen that empty general terms cannot be employed in his logical system, and that he appears to accept enough of Parmenides's views to make us wonder how he would explain the meaningfulness of empty terms, singular or general. Aristotle is certainly not the only logician whose philosophical

¹See, e.g., De Generations et Corruptione 318a16-7.
views limit his logic. Even so recent a logician as De Morgan said, \(^1\) 'It is only as representing existence that a term is used in logic'. The concept of existence is one whose explication requires a more sophisticated analysis of language than was available to the traditional logician, though Aristotle seems at times to transcend the limits of his theory and to anticipate Kant and Frege. Traditional logicians believed that, ultimately, every proposition is of the subject-predicate form. In *A System of Logic*, p. 13, Mill (e.g.) writes:

> Every proposition consists of two names; and every proposition affirms or denies one of these names of the other.

Concerning this view of the basic structure of propositions, Bradley acutely observed in 1883: \(^2\)

> The doctrine is erroneous. "B follows A", "A and B co-exist", "A and B are equal", "B follows A", "A is south of B" -- in these instances it is unnatural to take A or B as the subject and the residue as predicate. And, where existence is directly asserted or denied, as in, "The soul exists", or, "There is a sea-serpent", or, "There is nothing here", the difficulties of the theory will be found to culminate.

Not having an adequate view of the varied structures which propositions may exhibit, the traditional logician could not explain the use of empty expressions. Traditional logic, therefore, when consistent, was contaminated by powerful, though irrelevant, existence assumptions.

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\(^1\)De Morgan, A., *Logic* (London: 1860), p. 251

CONCLUSION TO PART I

The Greeks, to their horror, found that their fundamental intuitions concerning mathematics were inconsistent. The discovery of incommensurables wreaked havoc upon their mathematics. It was the revisionary mathematician Eudoxus who replaced the Pythagorean theory of proportion by a superior theory which was applicable to commensurable and incommensurable quantities. In this century mathematicians found that their intuitions concerning sets are inconsistent and thus in need of revision. Nor should we think that this is a problem afflicting only mathematics. The truth rather seems to be that, when as in mathematics we attempt to formalize our reasoning, then the contradictions latent in our unanalysed thought surface and must be removed through an adjustment of the deeper structure from which they came. I know of no a priori reason why our intuitions, anymore than our desires, should be consistent. The a posteriori evidence is certainly against their being so. I hope that our cursory survey of Greek philosophy was at least thorough enough to suggest that our fundamental intuitions concerning existence may be inconsistent. In any event, the chief purpose of Parts I and II is to point out the need for the revisions in our traditional concepts which I will advocate in Part III as a solution to the philosophical problems introduced in Parts I and II. Parts I and II may therefore be understood as essays in descriptive metaphysics, whereas Part III is an essay in revisionary metaphysics.¹

¹I use 'descriptive' and 'revisionary' in the senses which Strawson explains in Individuals (London: 1959), p. 9.
PART II CONTINUES OUR INTRODUCTION TO THE PRE-THEORETICAL PROBLEMS ASSOCIATED WITH THE CONCEPT OF EXISTENCE. ITS CHIEF PURPOSE IS TWO FOLD: 1) TO ACQUAINT THE READER WITH A NONPARMENIDEAN ANALYSIS OF EXISTENCE AND 2) TO SHOW HOW EXTREMELY PLAUSIBLE, GIVEN THAT ANALYSIS, THE ONTOLOGICAL ARGUMENT IS. TOWARDS THE END OF PART I WE INTRODUCED THE FREGEAN ANALYSIS OF 'EXISTS', IN WHICH THIS TERM CAN OCCUR ONLY IN GENERAL PROPOSITIONS; TOWARDS THE END OF PART II WE WILL BEGIN OUR DEFENSE OF FREGE'S ANALYSIS.
3.0 **Introduction**  
In this chapter I will first discuss the differences in the Greek and Christian outlooks insofar as these differences should affect their logical analyses of 'exists'. I will argue that, given the Christian belief in sin and in the literal creation of the world, Christian philosophers must offer a radically non-Parmenidean analysis of 'exists'. Then I will relate that non-Parmenidean analysis to the Christian discussions of the problem of existential import for the propositions in syllogisms. After our discussion of Medieval logic, I will present Anselm's Ontological Argument, an argument which we will see to be very plausible indeed in its logical context.

3.1 **Cautionary Note**  
I will not attempt to argue that anyone's actual speculation concerning existence was consciously influenced by the considerations I am about to put forth. I do believe that Christian theology requires a certain analysis of 'exists', and that there is evidence that certain Medieval thinkers offered the required analysis. Still, though we must recognize a tendency in human thought towards consistency, that tendency is uncertain and often unconscious. Moreover, considering the state of my own knowledge, the idealized positions ascribed to actual persons are more apt here than elsewhere to deviate unknowingly from historical fact. Therefore, though I have of course tried to be faithful to historical fact, when I quote from a Medieval work, it is probably best to think of the quotation as merely illustrating a position perhaps not found in the work as a whole. I will not attempt to represent Medieval philosophy in its full complexity, depth, or variety.
3.2 God and Quantification Theory

In the Christian tradition God is an artist whose work is the world. In Leibniz (whom for our present purposes we may regard as the last important Medieval philosopher) we find an attempt to provide a reasoned account of this traditional doctrine. Let us approach that account negatively, distinguishing it from a view which Leibniz rejects as incoherent. In the mind of God there cannot be a fund of featureless souls from which God selects one from time to time and then places it in the world where it acquires a character appropriate to its circumstances. On the contrary, the creation of the world did not proceed by means of a kind of divine lottery in which for no special reason one soul enters the world to become a man of wealth and power in virtue of the position into which it was thrust, while another soul, as luck would have it, suffers the very reverse of this. As the participants in the French Revolution would have seen, this would have been an unjust way for God to manifest his beneficence. But, apart from its injustice, Leibniz would say that this account of creation must be wrong because God could not select anything from a fund 'featureless souls', since even He could not identify such a soul as the object of future creation. Christian theology requires that God created Adam—i.e., a definite individual. It is not enough then that God created a man; for the concept of a man is applicable to more than one individual. But God began the human race with a certain individual. In order for God's creation of Adam to be a rational, deliberate act, He must (in Leibniz's view) have a concept of Adam so specific that in principle, it could not be applicable to more than one individual. If his concept of Adam were applicable to more than one possible individual, how could He know which one of these individuals He had created when He saw that concept realized in the world?
No description which is in any way incomplete is applicable to only one possible individual. Even if the description 'English philosopher born in 1872 who had numerous affairs with women and ran for Parliament' in fact applies to only one person, it might have applied to more than one person. Even if the description 'the first man to die' can apply to only one person, it could have applied to someone other than the one to whom it does apply, and is in that sense general, not individual. To explain God's acts of particular creation, Leibniz assumes that for any possible individual God has a complete concept from which He can produce a full description of that individual. Because of the identity of indescernibles, no two possible individuals could answer to the same individual concept.

In virtue of His complete concepts God is able to identify the various possible individuals and consider them as candidates for creation. It follows that the descriptions associated with these concepts enable God to identify things independently of their existence. Otherwise, He could not identify the as yet uncreated Adam and then confer existence upon him. Our natures therefore are something which God recognizes but does not create. Thus, we cannot blame God for our not having been born rich, e.g.; He can no more choose our parents than we. Thus, Leibniz writes:\[1\]

\[\ldots\]You will object that it is possible for you to ask why God did not give you more strength than he has. I answer: if he had done that, you would not exist, for he would have produced not you but another creature.

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With the famous exception of Plato in the *Timaeus* (27d-8d), Greeks generally rejected the possibility of creation from nothing, as Aristotle does in *De Generatione et Corruptione* 317a24-6. According to Plutarch, e.g.:¹

Xenophanes left room neither for creation nor destruction, but claims that the universe is always the same. For if it were created there would have been a time when it was non-existent. But the nonexistent cannot come into existence, neither can it make anything nor can anything be made from it.

But, as we've been noticing, *creatio ex nihilo* is an important part of Christian theology. Thus, we find Thomas Aquinas, e.g., saying: 'That God can and does make something from nothing should be steadfastly held'.² But Aquinas was not blind to the *prima facie* difficulties involved in this aspect of Christian theology; he writes:³

The maker gives being to that which is made. If then God makes a thing out of nothing, he gives being to that thing. Hence either there is something that receives being, or there is nothing. If nothing, then nothing receives being by that action of God's, and thus nothing is made thereby. If something, ... God makes a thing from something already existing, and not from nothing.

I do not well understand how Aquinas would answer this objection,⁴ but his answer seems to involve him in the Leibnizian assumption that God can understand the natures even of things which do not yet exist. Otherwise, He would

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⁴In this connection see *God and the Soul* (New York: 1968), pp. 83-4, where Geach attempts to distinguish transformations from absolute creations.
not know what He was about to create. Recalling that on Parmenides's reason-
ing discourse about the nonexistent appears impossible because the nonexis-
tent is assumed to have no nature, we see that Christians are committed to
adopting a radically non-Parmenidean analysis of the relation between the
existential and predicational uses of 'to be'.

For the purposes of elementary exposition, I have permitted myself to
distinguish the Greek and Christian outlooks with reference to the Christian
creation myth, where God acts of creation appear in a temporal order. Our
problem was: How can God identify the as yet uncreated Adam? This was, I
think, a good way of launching our discussion, and not without interest in
its own right. But we must now notice that this approach (a) involves us in
the special problems concerning the relationship of an allegedly atemporal
being to his temporal works, while it (b) avoids the very problems with which
we are primarily concerned just because it centers our attention upon failure
of reference in temporal contexts.

To set matters right, we will now consider the Christian concept of sin.
In the Apology (26a-b) and elsewhere Socrates argues that no man would cons-
ciously choose to do evil. A dominant theme in Greek ethics is to equate
evil-doing with ignorance. Christians for the most part are of a different
opinion. According to Saint Augustine, sin is the conscious choice of evil
as evil; it is something we do freely (and often). Free will is thus at the
crux of sin, and free will requires contingency. We should therefore expect
to see Christian philosophers devoting a good deal of attention to the topic
of contingency, and in fact we do.

Parmenides held that 'the same thing can be thought as can be', which
I understand to mean: 'something is possible if and only if it exists'. If
we may interpret 'G' in

\[(3') (\forall x)(Gx \rightarrow Ex)\]

as 'possibly existent', then 'something is possible if and only if it exists' emerges as a valid consequence of the Parmenidean premise

\[(2) (\forall x)Ex,\]
given the apparent tautology that, if something does exist, it is possibly existent.\(^1\) Generally speaking, Greeks rather cheerfully accepted the view that every possibility is realized. In his famous (now lost) Master Argument Diodorus is said to have argued:\(^2\)

The "master argument" appears to have been propounded on some basis as this.

There are three propositions which are at variance with one another—i.e., any two with the third—namely, these: (1) everything as an event in the past is necessary; (2) the impossible does not follow from the possible; (3) what neither is true nor will be is yet possible. Diodorus, noticing this conflict of statements, used the probability of the first two to prove the conclusion, "Nothing is possible which neither is nor will be true".

Boethius says that 'Diodorus defines the possible as that which either is or will be'.\(^3\) Though there are passages in Aristotle reminiscent of Diodorus (who was Aristotle's younger contemporary), this definition of 'possible'—and indeed the Master Argument itself, whatever it was\(^4\)—would have been

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\(^1\) 'Possibly existent' is undoubtedly an illegitimate predicate, and we will see why in the next chapter; but, given certain plausible assumptions about generating '◊G' from 'G' and the employment of 'E' as a predicate, it seems permissible to use '◊E' as a predicate.

\(^2\) Epictetus, *Dissertationes*, bk II, ch 19.

\(^3\) As cited in Kneale, W. and M., *The Development of Logic*, p. 117.

\(^4\) No one has been able to reconstruct this lost argument.
anathema to Christian thinkers; thus, we find John Buridan, e.g., saying:¹

'This proposition is true: "Something which will not be, can be".' Buridan is denying the view—implicit in Parmenides, explicit in Diodorus—that every possibility is realized. What is at issue between the Greeks and Christians is well brought out by Leibniz, as follows:²

One of the oldest doubts of mankind concerns the question of how freedom and contingency are compatible with the chain of causes and with providence. And Christian investigations of the justice of God in accomplishing man's salvation have merely increased the difficulty of the matter.

When I considered that nothing occurs by chance or by accident unless we resort to certain particular substances, that fortune apart from fate is an empty word, and that nothing exists unless certain conditions are fulfilled I found myself very close to the opinions of those who hold everything to be absolutely necessary; believing that when things are not subject to coercion even though they are to necessity, there is freedom, and not distinguishing between the infallible, or what is known with certainty to be true, and the necessary.

But I was pulled back from this precipice by considering those possible things which neither are nor will be nor have been. For if certain possible things never exist, existing things cannot always be necessary; otherwise it would be impossible for other things to exist in their place, and whatever never exists would therefore be impossible. For it cannot be denied that many stories, especially those we call novels, may be regarded as possible, even if they do not actually take place in this particular sequence of the universe which God has chosen—unless someone imagines that there are certain poetic regions in the infinite extent of space and time where we might see wandering over the earth King Arthur of Great Britain, Amadis of Gaul, and the fabulous Dietrich von Bern invented by the Germans.

¹As cited in Moody, E., Truth and Consequence in Medieval Logic (Amsterdam: 1953), p. 58.

To the view that every possibility is realized, Leibniz objects as follows: many things, though possible in themselves, are incompatible with what does in fact exist; hence, not every possibility is realized—i.e., some possibilities are unrealized. By this, Leibniz does not mean that unrealized possibilities exist; on the contrary, we will see that he does not attribute existential import to the particular quantifier 'some'. Thus, he does not fall into the error of assuming that the non-existent in some curious way exists.

Contrary to Parmenides, Leibniz holds that some propositions of the form

\[ \alpha \text{ is } \beta \]

are true even if \( \alpha \) refers to nothing which exists. The proposition 'King Arthur is possible', e.g., is true and yet does not imply the existence of King Arthur. To Arnauld, who objects that Leibniz treats mere possibles as though they were real, Leibniz answers:

Everything that is actual can be conceived as possible, and if the actual Adam will have a certain posterity in the course of time, one cannot deny this same predicate to this Adam thought of as possible, especially since you agree that God envisages in him all his attributes when he decides to create him. So these attributes pertain to him, and I do not see that what you say about the reality of possibilities is contrary to this. In order to call something possible, it is enough merely to be able to form a concept of it when it is only in the divine understanding, which is, so to speak, the realm of possible realities. As concerns possibles, I am thus content that one can form true propositions from them; thus one can judge, for example, that a perfect square implies no contradiction, even if there has never been a perfect square in the world. If we wished absolutely to reject such pure possibles, we should destroy contingency and freedom, for if nothing is possible except what God has actually created, whatever God has created would be necessary, and in willing to create something, God could create only that thing alone, without any freedom of choice.

1. The Leibniz-Arnauld Correspondence', as contained in Loemker, p. 336.
Thus, Leibniz does not commit himself to there being nonexistent things, such as King Arthur; he is rather saying that we can frame true propositions about what does not exist. Notice, moreover, that he is not merely saying that such comparatively unusual predicates as 'is possible' apply directly to the nonexistent, but even ordinary ones such as 'has a posterity'.

Leibniz is indeed committed to the view that a great many predicates apply to things independently of their existence. For independently of God's decision to create something, He has a complete concept of every possible individual which 'contains once and for all everything that will ever happen to him'. If God could not know the nature of things independently of His acts of creation (i.e., independently of their actual existence), then His knowledge of the world would have to be a posteriori and He would not be in a position to make rational choices amongst possibilities. We may say that in Leibniz's view any predicate necessary to the individuation of something applies independently of its existence. In a very strong sense, therefore, Leibniz is committed to the independence of the predicational use of 'to be' from its existential use.

Arnauld objected to Leibniz's 'complete concepts' on the grounds that they subjected the human race to 'a more than fatal necessity'. To this charge, if I have understood him correctly, Leibniz replied that, although the concept of sin is contained in the complete concept of Adam, e.g., the proposition 'Adam sinned' is nonetheless contingent because God might not have created Adam at all, and in that event 'Adam sinned' would in fact have

1 Lucas, P. and Grint, L., trs, Leibniz's Discourse on Metaphysics (Manchester: 1968), pp. 18-9, number XIII.

been false. In the New Essays he writes:

The scholastics hotly debated de constantia subjecti, as they called it; that is, how a subject-predicate proposition can have a real truth when the subject does not exist. The answer is that its truth is merely conditional, in that that if the subject ever does exist it will be found to be thus and so.

It is difficult to see in Leibniz's views a credible answer to Arnauld. If the only condition which must be satisfied for Judas to sin, e.g., is that he exist, then, because it is not within his power never to have existed, Judas is under the yoke of 'a more than fatal necessity', as Arnauld puts it.

Leibniz's further elucidations in this regard serve merely to render the absurdity of his position more evident. Leibniz often says that necessary propositions are reducible to identity statements in a finite number of steps, whereas contingent propositions are not so reducible. For they are rooted in the complete concepts of their subjects, and such concepts are infinite—i.e., individual substances possess an infinite number of primitive properties necessary to their individuation. But, he adds, contingent propositions nevertheless have their proofs a priori—i.e., they are analytic in the sense defined by Kant. God, who alone can conduct demonstrations involving an infinite analysis, sees the proofs a priori even of contingent propositions. In this way the divine foreknowledge necessary for God to

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1 See Lucas and Grint, pp. 19-22; and Mason, pp. 11-7 and 39-66. (The reader may notice that this defense of contingency and the quotation I am about to give from the New Essays is inconsistent with the analysis of existence to which Leibniz is committed; I will deal with this point shortly.)

2 New Essays concerning Human Understanding, bk iv, ch xi sec 13; translated by J. Bennett and P. Remnant.

choose the objects of his creation is supposedly explained in terms which
do not commit believers to a kind of logical determinism which is inconsis-
tent with the contingency required for sin. From Augustine onwards, Chris-
tian apologists have spent much useless thought on the problem of divine
foreknowledge and free will. But Leibniz is perhaps alone in his belief
that the problem of logical determinism for supposedly contingent proposi-
tions can be eliminated merely by making the demonstrations of such proposi-
tions very lengthy.

Our concern, of course, is not with the problem of fatalism, but we
should nevertheless notice certain logical difficulties in Leibniz's defence
of free will; he writes:

But can it be that it is assured from all eternity
that I shall sin? Answer this for yourselves; per-
haps it is not. So instead of musing on what you
cannot know and what cannot give you any light, act
according to the duty which you know. But someone
else may say, how does it come that this man will cer-
tainly commit this sin? The reply is easy; it is that
otherwise he would not be this man. For God foresees
from all time that there will be a certain Judas, whose
idea or concept which God has contains this future free
act. There remains then only this question: Why does
such a Judas, a traitor, who is merely possible in the
idea of God, actually exist? But to this question no
answer can be expected here on earth, except the gen-
eral one that since God has found it good that he
should exist in spite of the sin which God foresaw,
this evil must be compensated for with interest in
the universe and that God will draw a greater good
from it and that it will turn out finally that this
sequence of events, including the existence of this
sinner, is the most perfect among all other possible
kinds.

Implicit in this subtle passage is the view that God has power over the

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1Loemker, p. 322. [Discourse on Metaphysics, prop. 30]
existence of things, but not over their essences. It would seem that 'exists' is the only predicate which God is at liberty to confer upon His creatures or withhold from them. But, as we have seen, to save free will Leibniz also holds that (A) 'Adam sinned' would have been false had God not created Adam; it is this assumption which makes 'Adam sinned' a contingent proposition.

But how can Leibniz maintain (A) and also that (B), if the actual Adam sins we 'cannot deny this same predicate to this same Adam thought of as [merely] possible'? To explain contingency Leibniz assumes that the predicational use of 'to be' is not independent of its existential use—i.e., he assumes that the nonexistence of Adam is a sufficient condition for the falsity of 'Adam is a sinner'. But, for the reasons given earlier, to explain God's acts of particular creation Leibniz assumes that the predicational use of 'to be' is independent of its existential use. It might also be noticed that, when Leibniz criticizes Descartes, he again commits himself to the Parmenidean treatment of 'to be', as follows:

To say I think, therefore I am is not really to prove existence from thought, since to think and to be thinking is to have said I am.

Leibniz's ambivalence towards 'to be' may further be illustrated by these passages, where the third is hard to reconcile with the first two:

I use the term "contingent" as do others, for that whose essence does not involve existence.

The possibility or notion of a created mind does not involve existence.

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1 New Essays, bk iv, ch 7, sec 7 [trs: Bennett and Remnant again]


3 Loemker, p. 203.
essence or possibility must contain something from which actual existence follows.¹

A question naturally arises as to how deeply Leibniz is committed to an inconsistent treatment of 'to be'. After all, he maintains the Parmenidean viewpoint when he is defending the pious doctrine of sin and then when he is casting about for a refutation of a rival philosopher (Descartes). Perhaps his considered view is that the predicational use of 'to be' is independent of its existential use. Though this in fact is the dominant view in Leibniz, in the next chapter I will argue that the inconsistency nevertheless runs very deep in his thought.

3.3 The Copula in English and Latin

On p. 56 we argued that 'x is', understood existentially, is not elliptical for 'x is ___', where '___' is to be filled in with some predicate—say, 'existent'. But we also noted Quine's view:²

...We may indeed take "(∃x)(x = a)" as explicating "a exists". John Bacon has noted a nice parallel here: just as "a eats" is short for "a eats something", so "a is" is short for "a is something".

I want now to consider Quine's view relative, not to English, but Latin. Leibniz writes:³

What is to be said about the propositions "A is an existent or, "A exists"? Thus, if I say of an existing thing, "A is B", it is the same as if I were to say "AB is an existent"; e.g. "Peter is a denier", i.e. "Peter denying is an existent". The question here is how one is to proceed in analysing this; i.e. whether the term "Peter denying" involves existence.


In Latin 'Petrus est abnegans' is equivalent to 'Petrus abnegans est existens'. More generally, \( \alpha \text{ est } \beta \) is equivalent to \( \alpha \beta \text{ est existens} \). If we may render \( \alpha = \alpha \) as \( \alpha \text{ est } \alpha \), then this proposition is equivalent to \( \alpha \alpha \text{ est existens} \), which in turn reduces to \( \alpha \text{ est existens} \). In these transformations \( \alpha \) is a singular term—e.g., 'Petrus'. Therefore, we may accept them as suggesting that \( \alpha \text{ est existens} \) be treated as the basic form of singular existence claims in Latin. Thus, in Latin it might seem that 'x is', understood existentially, is elliptical for 'x is existent'.

Peter Abelard seems prepared to accept

(1) \( \alpha \text{ est existens} \)

as giving the sense of

(2) \( \alpha \text{ est} \),

where (2) means that \( \alpha \) exists. But he adds that 'est' in (2) is a mere copula between terms, which as such does not imply the existence of \( \alpha \). For, if every occurrence of 'est' were elliptical for 'est existens', then we would have to replace (2) by

(3) \( \alpha \text{ est existens existens} \),

and so on. To avoid this regress, Abelard holds that, whenever 'est' is used as a copula in a singular proposition, it is free of existential import—i.e., he maintains that the predicational use of 'to be' in singular propositions is independent of its existential use in such propositions; he writes:

\[
\text{Nec quidem, quantum ad eius interpretationem pertinet, ex eo quod dicitur "Petrus est homo": inferri potest}
\]

\[\text{Nec quidem, quantum ad eius interpretationem pertinet, ex eo quod dicitur "Petrus est homo": inferri potest}\]

\[\text{Nec quidem, quantum ad eius interpretationem pertinet, ex eo quod dicitur "Petrus est homo": inferri potest}\]

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2Ibid., pp. 137, 162.
3Ibid., p. 137.
"Petrus est", sed fortasse quantum ad praedicationem "hominis", quod existentis rei tantum nomen est.

I.e.: 1

And in so far as we are concerned with interpretation of it [the copula], from the assertion "Peter is a man" we cannot infer "Peter is", though perhaps we may in so far as we are concerned with the interpretation of "man", which is a name for an existing thing.

This quotation is curious insofar as it suggests that, when "to be" is used with a general term (such as "man"), it involves existence. But this is how Abelard views the matter; he writes: 2

Cum autem "Quidam homo non est homo" semper false sit atque "Omnis homo est homo" homine non existente, patet simul easdem falsas esse: unde nec recte dividentes dici poterunt.

I.e.: 3

Since, however, "Some man is not a man" is false in all circumstances, and "Every man is a man" when no man exists, it is clear that they are false together; and so they cannot rightly be called contradictories.

Since Abelard treats even the apparent tautology 'Every man is a man' as contingent on the grounds that it is false when there are no men exist, it is clear that he, like Aristotle (and perhaps because of Aristotle), assumes existential import for the general terms of true propositions. Aristotle's logic is, of course, neutral where singular terms are used; and these terms Abelard would free of existential import. Abelard's usage of 'to be' is thus opposite to that of most modern logicians, who assume existential im-

1[tr by W. and M. Kneale]

2Dialectica, p. 76.

3[tr by W. and M. Kneale]
port for singular terms (in order to validate existential generalization) but not for general terms. In their systems 'Every man is a man' would emerge as the tautology \((\forall x)(\exists x \rightarrow \exists x)\)', whereas 'the King of France is the King of France' (e.g.) would carry an existential hypothesis which would prevent it from standing alone as a tautology. Though there is nothing immediately inconsistent about either usage, we may at least note a \textit{prime facie} problem for Abelard. Contingency is ordinarily thought to arise where a supposition of existence is involved. Therefore, if we treat singular propositions as true independently of the existence of their subjects, it will be difficult to establish the contingency of singular propositions. For Leibniz, as we will see, this an acute problem; and he knew it.

3.4 The Elimination of Existence Assumptions in Logic

The acceptance of 'existent' ("existens") as a predicate of individuals is the first step towards the separation of the predicational and existential uses of 'to be' ('esse'). When we attribute a predicate to an individual, in Abelard's view we do not through the mere use of 'to be' import existence to our subject—i.e., 'Homer is a poet' (e.g.) does not (in Abelard's Latin) imply that Homer exists. The proposition 'Homer is an existent', of course, does. But the existential force of this proposition arises not from the mere use of 'is' but rather from the application of the predicate 'existent' to the subject Homer. What Abelard has done thus amounts to this: While retaining the predicational use of 'esse', he drops its existential use for singular propositions. Then to assert the existence of an individual he borrows a predicate ('existens') from a different verb ('exsister') which, when used with the copula, implies the existence of its subject.

But Abelard's separation of the two uses of 'to be' is imperfect because
for some reason he retains the existential force of 'to be' when it is used in general propositions. For a more thorough-going expression of Abelard's point of view, I cite the following from William of Sherwood:

It must be known that the verb "is" is sometimes taken equivocally, for sometimes it indicates being [esse actuale], which is due to something actually existing, and sometimes conditional being [esse habituale], which is due to that which is in itself some nature and is suited [natus] to be conditionally in some singular although it is not actually.

[If "is" is taken] in the first way "every man is an animal" is false when no man exists. [If "is" is taken] in the second way it is true: ...

Some say also that when no man exists "man is" is ambiguous with the same ambiguity, for they say that it is false [if "is" is taken] in the first way, true [if "is" is taken] in the second way.

Here William of Sherwood appears to think that the vexing problem of existential import for general terms can be settled by adopting a suitable convention for the interpretation of the copula. We may understand this passage as suggesting that Abelard's treatment of the copula in singular propositions may be extended to cover general ones as well.

When we understand William's words in this way, they give rise to an interesting possibility—viz., that the standard text-book accounts of Medieval logic are completely wrong insofar as they relate to the Medieval treatment of existential import. This is a matter for specialists, but we can at least make a good prima facie case for their being wrong.

Many modern logicians (Russell, e.g.) write as though traditional logi-

1Kretzmann, N., tr, William of Sherwood's Syncategorematic Words (Minneapolis, Minnesota: 1968), pp. 92-3.
cians accepted as valid certain arguments whose patent invalidity curiously passed unnoticed until modern times. Subalternation, of course, is the traditional inference most often cited as invalid. It is customary now to treat

\[(A) \text{ All } S \text{ is } P\]
as equivalent to

\[(A') (\forall x)(Sx \rightarrow Px).\]

Admittedly, \((A')\) does not entail the particular affirmative proposition \((I)\) when that proposition \((I)\) is understood as

\[(I) (\exists x)(Sx \& Px).\]

In this situation the first and most obvious thing to consider is whether traditional logicians understood \((A)\) in the sense of \((A')\). Certainly, some traditional logicians would not have done so; John Buridan, e.g., says: 'every affirmative proposition whose subject or predicate stands for nothing is false'. Having laid down these truth conditions, it seems better for historical purposes at least to express \((A)\) not as \((A')\) but as

\[(A'') (\forall x)(Sx \rightarrow Px) \& (\exists x)Sx.\]

Thus expressed, \((A)\) entails \((I)\) above. But I mention the possibility of construing \((A)\) as \((A'')\) only to set it aside. In fact, I am not at all concerned with finding a way of fitting traditional inferences to modern quantification theory. On the contrary, I hope to raise a doubt as to the propriety of the attempt.

In Medieval Logic (Manchester: 1966), p. 29, Boehner says:

A particular affirmative categorical proposition ... is interpreted by the scholastics in exactly the same manner as by modern logicians.

\[1\text{As cited in Moody, E., Truth and Consequence in Medieval Logic, p. 58.}\]
To test this claim let us first notice how a modern logician would interpret the English sentence

(1) Some A is B.

Then let us contrast this interpretation to what a Medieval logician might say about the Latin sentence

(2) Quoddam A est B.

On the modern view, (1) of course comes out as

(1') There is something such that it is A and B,

where 'there is' is understood to assert the existence of something which is A and B. But, recalling the Medieval attempt to separate the predicational and existential uses of 'esse', we see that a Medieval logician might understand

Est aliquid ita sunt A et B

in a way which does not imply the existence of its subject. That is to say, he might attempt to avoid the problem of existential import in subalternation, not by asserting existential import in the case of (A), but by denying it in the case of (I). Though the Kneales say that 'Leibniz committed himself quite explicitly to the assumption of existential import for all universal statements', he in fact offers precisely the analysis we should expect to find in him:

Major haec est difficultas: quod conversio recepta videtur aliquando inducere falsum. Nempe conversio per accidens universalis affirmativae in casu tali: omnis ridens est homo, Ergo quidam homo est ridens, nam prior vera est etiamsi nullus homo riret, at posterior vera non est, nisi aliquis homo actu rideat. Prior loquitur

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A great difficulty is this: that accepted conversion seems sometimes to lead to what is false. I have in mind the conversion per accidens of a universal affirmative proposition in a case such as "Every laugher is a man, therefore some man is a laugher". For the former is true even if no man laughs, whereas the latter is not true unless some man actually laughs; the former speaks of possibles, the latter of actuals. However, a difficulty of this kind does not occur if you remain within the limits of possibles: e.g. "Every man is an animal, therefore some animal is a man". It must therefore be said that the conclusion, "Some man is a laugher", is true in the region of ideas, i.e. if you take "laugher" for some species of possible entity, just as "soldier" is a species of man; or, just as man is a species of animal, so some man is a laugher; the proposition will be true, even if no laugher exists. Certainly, I have a proof of conversion, through a syllogism in the third figure: "Every laugher is a laugher, every laugher is a man, therefore some man is a laugher". I understand this to be in the region of ideas, if "laugher" is taken for a species of man, not for an actual laugher.

The reader will find precisely the same treatment of subalternation in John of St. Thomas, but let us remain with Leibniz, who says:

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1 As translated by Parkinson in: Leibniz: Logical Papers, p. 115.


Si sumatur Ens de possibilitate seu ut sit ridens in regione idearum, etiam quidam homo est ridens, non aliter accipi debet, quam homo ridens est Ens, nempe possibile seu in regione idearum. Sed si Ridens est Ens sumatur pro realiter existente, etiam Homo ridens est Ens pro tali sumi poterit, verumque erit aliquem hominem actu ridere.

I.e.:

If "entity" is taken to refer to possibility, i.e., as meaning that there is a laugh in the region of ideas, then "Some man is a laugh" must not be understood as other than "A man-laugher is an entity", namely as possible, i.e. in the region of ideas.

What Leibniz has done in this passage is very interesting. He has taken the present participle ('ens') from the verb 'esse', and then used that participle as the subject of a proposition which attributes a property to something (an ens) without (in his view) thereby implying the existence of the ens.

Presumably, once the predicational use of 'esse' has been separated from its existential use, neither the verb 'esse' nor its present participle 'ens' has any existential implications. Therefore, the proposition 'ens est B' presumably does not justify the inference that this B-type ens exists.

Leibniz writes:

A true proposition is one which can be proved; a false proposition is one which is not true; an impossible proposition is one into which a contradictory term enters; a possible proposition is one which is not impossible. Is every universal negative, then, impossible? It seems that it is because it is understood of concepts, and not of existing things; thus, if I say no man is an animal, I do not understand this of existing men alone.

Prima facie, it is somewhat surprising to find a philosopher claiming that every universal negative proposition expresses an impossibility. But the

1Parkinson, p. 118.  
2Parkinson, p. 76.
explanation for this paradoxical claim is now simple. If we assume, as I am sure Leibniz does, that the particular quantifier ('some') ranges over the entia of all possible worlds,¹ then the proposition 'Quoddam A est B' is true if and only if something could be both S and P. The universal negative proposition, being the contradictory of the particular affirmative, would then mean that nothing could be both S and P—and, hence, would indeed express an impossibility. Thus Peirce writes:²

DeMorgan and his followers frequently speak of a "limited universe of discourse" in logic. An unlimited universe would comprise the whole realm of the logically possible. In such a universe, every universal proposition, not tautologous, is false; every particular proposition, not absurd, is true.

Let us say that the proposition 'All men are mortal', e.g., is true if no proposition of the form

(1) \( \alpha \) is an immortal man

is true. Now, if the predicational use of 'to be' is not independent of its existential use, no nonexistent man could stand as a counter-example to the generalization that all men are mortal. For in that event \( \neg \alpha \) is an immortal man will not be true unless \( \alpha \) refers to something which exists. But, if the nonexistence of \( \alpha \) were not itself a sufficient condition for the falsity of

¹A possible world, I will say, is a state of affairs which would have to obtain in order to verify a given set of propositions from which propositions nothing is deducible of the form \( \neg \alpha \& \neg \neg \alpha \). Since there are pairs of contradictory propositions of which neither member is tautologous, it would seem that there are distinct possible worlds. To each distinct possible world, \( w_i \), we may correlate a certain set of individuals—viz., the set of individuals which would exist if that state of affairs were to obtain. Thus, if we may think of Shakespeare's Hamlet, e.g., as depicting a certain possible world, then its contents consist (in part) of its cast of characters. (The reader is welcome to improve upon this account of possible worlds and their contents—if he can.)

then 'possible instances' will instantiate every predicate free of contradiction; and in that event no universal affirmative proposition will be true unless it holds in every possible case; that is why such propositions, if true, are necessary. It is to be noted that this usage gives rise to certain paradoxes—e.g., that we could 'refute' any scientific generalization with a consistent, though imaginary, counter-example. But perhaps such paradoxes could be avoided by an altered way of speaking in science.

In Leibniz's system let us symbolize the proposition

\[ \text{Est aliquid ita est } \beta \]

as \[ (\Sigma \mu) \beta \mu \], and say that this proposition is true if and only if \( \beta \) is free of contradiction; let us abbreviate \( -(\Sigma \mu) \beta \mu \) as \( (\Pi \mu) \beta \mu \). Finally, to each singular term \( \alpha \) let us associate an individual concept, and say that \( \alpha \) is true if it is part of the individual concept of \( \alpha \) to be \( \beta \). Formally, Leibniz's quantification theory does not differ from that of Frege. By this, I mean: (1) if we were to rewrite a theorem in Frege's system so that in place of his quantifiers '\( \exists \)' and '\( \forall \)' we had Leibniz's quantifiers '\( \Sigma \)' and '\( \Pi \)', the result would be a theorem in Leibniz's system; and (2) the converse of (1) holds as well. Thus, the differences which arise between Frege and Leibniz concern only the interpretation of the quantifiers and theorems in which they occur.

These differences are nonetheless very important from a philosophical point of view, and help to explain certain peculiarities in Leibniz's philosophy. Readers of the Discourse on Metaphysics know, e.g., that in his metaphysics the assertion that Judas is not virtuous is a very strong assertion. Now we see why. In his quantification theory the extension of 'virtuous' is fixed with respect to all the entia of the various possible worlds,
not just those of the actual world. Therefore, in saying that Judas is not virtuous we are saying that there is no possible world in which he is so; a very strong assertion indeed.

Practically everyone now would reject Leibniz's metaphysics; but, as Russell notes in his study of Leibniz, they seem somehow to follow from his logic. That logic, moreover, in some ways seems more plausible than Frege's. We'll have more to say about this in Chapter 5. But for now it is enough to note that, insofar as we think of logic as being concerned with all possible worlds (and therefore free of the existential assumptions which would tie it merely to the actual world), Leibniz's existence-free quantifier seems better suited than Frege's \( \exists \) for capturing our view of logic. For in his system, unlike that of Frege, no logical inference will depend upon the existence of anything. Leibniz was aware of this feature of his approach, and gives it as a reason for preferring that approach to others; see Parkinson, pp. 20-1.

3.5 Parmenides Revisited Classical Greek did not have two verbs corresponding to 'esse' and 'ex(s)istere'. It had only 'εστιν', which corresponds to 'esse'. Therefore, it would not have occurred as readily to a Greek philosopher as to a Latin one to separate the existential and predicational uses of 'to be'. But, given that Latin has the verb 'ex(s)istere' from which we can form the predicate 'existens' to use in existence claims (negative and positive), let us see how a Medieval philosopher might handle the Parmenidean paradoxes.

In Leibniz's logic the Parmenidean premise that there is nothing which does not exist would come out as \( -(\Sigma x) \cdot Ex \) , where 'Ex' stands for 'x est existens'. Given that 'Σ' is free of existential import, however, there
seems no reason for regarding this claim as true in Leibniz's Latin. We may understand the proposition to mean: no substitution instance of 'x does not exist' is true. But once the the predicational use of 'to be' has been separated from its existential use there seems no reason for supposing that 'Pegasus does not exist' is not a straightforward, true predicational claim about Pegasus. Parmenides would have thought it absurd to say

(1) Some entities do not exist.

But in view of the distinctions we've been making, the Latin claim

(1') Sunt entia ut non existere

does not seem absurd at all, since the existential import of 'esse' is given up. In a Parmenidean logic such assertions as 'Pegasus is imaginary' are bound to appear puzzling and call for a special analysis which distinguishes them from ordinary subject-predicate propositions. But in Leibniz's logic the assertion that Pegasus is imaginary may presumably be treated as a straightforward predicational claim about the ens Pegasus.

As we saw (p. 87), in a Parmenidean logic, if a does not exist, then it cannot have the characteristic of satisfying the propositional function '... is F', nor yet the characteristic of satisfying the propositional function 'it is not the case that ... is F'. This seemed to suggest that either a's existence is necessary, or else singular propositions do not have contradictories. In section 3.2 (pp. 104-7), we noticed some evidence that Parmenideans should (on their principles) treat the existence of a as a matter of necessity. After a fashion this solves the problem of finding a contradictory for singular propositions (since now they would share the necessary consequence that a exists); but it does so at a price which no Christian philosopher can pay. Let us see then how Leibniz might analyse βα and \( \neg \beta \alpha \).
First, whereas Frege's quantifier is one of existence, Leibniz's is one of possibility. That is to say, whereas \( (\exists x)Fx \) means 'F's exist', \( (\Sigma x)Fx \) means 'F's are possible'. In place of the existential assumptions which run throughout a Fregean logic (involved, e.g., in existential generalization), in a Leibnizian logic we have modal assumptions (involved, e.g., in subalternation). For Leibniz, α's possibility is therefore assumed in making predicational claims about α. Therefore, α and \( \neg \alpha \) share the consequence—or at least informally presuppose—that α is possible. Nevertheless, Leibniz can treat α and \( \neg \alpha \) as straightforward contradictories. For it can plausibly be argued that assertions of logical possibility, unlike assertions of existence, are necessary.

Leibniz's system thus appears to offer the hope of solving what are in Parmenidean systems very perplexing problems. But we must not fail to notice the modal assumptions by which he replaces the existential assumptions of Parmenides. In the next chapter we will see why these assumptions are there, and whether they lead to greater paradoxes than those of Parmenides. But we leave these logical matters for now, and turn to the Ontological Argument, which we will see to fit very nicely into the context of Medieval logic.

3.6 The Ontological Argument: An Exposition

In Naturales Quaestiones, I, Praef. 13, the Stoic philosopher Seneca (3 B.C.-65 A.D.) writes:

Quid est deus? mens universi, quod vides totum et quod nonvides totum, sic demum magnitudo illi sua redditur, qua nihil maius cogitari potest, si solus est omnia, si opus suum et intra et extra tenet.

1All parenthetical page references to Anselm's work are to Charlesworth, M., St. Anselm's Proslogion (Oxford: 1965), which contains the Latin text of the Proslogion, an English translation thereof, and a helpful commentary.
What is God? The mind of the universe, which you see as a whole and which you do not see as a whole; thus, His greatness is only partly apprehended. Nothing greater than God can be thought, since He alone is everything, if He holds His work inside as well as outside.

In *De Moribus Manichaeorum*, I, ii, ch xi, Augustine, whom Anselm often follows, defines 'God' as a being *quo esse aut cogitari melius nihil possit*—i.e., God is a being which exists, or a being than which nothing greater can be thought; also see Augustine, *Confessions*, bk 7, ch 4. Echoing Seneca and Augustine, Anselm writes (p. 116):

> Et quidem credimus esse aliquid quou nihil maius cogitari possit.

i.e., we believe God to be something than which nothing greater can be thought.

Thus, Anselm's novelty consists, not in how he characterized God, but rather in the specific argument he employed with respect to this traditional concept of God. That argument is as follows (p. 117):

Well then, Lord, You who give understanding to faith, grant me that I may understand, as much as You see fit, that You exist as we believe You to exist, and that You are something than which nothing greater can be thought. Or can it be that a thing of such a nature does not exist, since "the Fool has said in his heart, there is no God"? But surely, when this same Fool hears what I am speaking about, namely, "something than which nothing greater can be thought", he understands what he hears, and, and what he understands is in his mind, even if he does not understand that it actually exists. For it is one thing for an object to exist in the mind, and another thing to understand that an object actually exists. Thus, when a painter plans beforehand what he is going to execute, he has [the picture] in his mind, but he does not yet think that it actually exists because he has not yet executed it. However, when he has actually painted it, then he both has it in his mind and understands that it exists because he has now made it. Even the Fool, then, is forced to agree that something than which nothing greater can be thought exists in the mind, since he understands this when he hears it, and whatever is understood is in the

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1[translated by Hildegard Deuchler]
mind. And surely that than which a greater cannot be thought cannot exist in the mind alone. For if it exists solely in the mind even, it can be thought to exist in reality also, which is greater. If then that than which a greater cannot be thought exists in the mind alone, this same that than which a greater cannot be thought is that than which a greater can be thought. But this is obviously impossible. Therefore there is absolutely no doubt that something than which a greater cannot be thought exists both in the mind and in reality.

There has been a good deal of controversy concerning the meaning of Anselm's phrase 'esse in intellectu', which is usually translated as 'to be in the understanding'. I will take this phrase to mean 'to be conceivable or possible'. When 'esse' occurs alone, I will take it to mean 'to be actual'. Thus, in his argument Anselm is moving from God's possibility to his actuality.

Anselm, it seems to me, is arguing from the following definition and premises:

(D1) God is that being than which nothing can be understood.

(Pl) Actuality is a perfection.

(P2) God is in the understanding—i.e., is possible.

Abbreviating the phrase 'that than which nothing greater can be conceived' as 'G', we have:

(1) God is G. [by (D1)]

For reasons that are somewhat obscure, Anselm holds that

(2) God is not actual

entails

(3) God is not G.

For the sake of the argument, let us grant that (on Anselm's premises and definition of 'God') this entailment holds. Then either (P2) or (2) is false; (P2) is a premise; therefore, (on Anselm's premises), (2) is false. Therefore (on Anselm's premises), God is actual.
3.7 David Lewis

We may, I think, clarify Anselm's argument somewhat if we examine David Lewis's paper 'Anselm and Actuality', Nous, vol. 4 (1970), pp. 175-88. This paper is written from the perspective of contemporary modal logic, and assumes a possible worlds semantics for modal logic. Before looking at 'Anselm and Actuality', then, let us present briefly Lewis's views on possible worlds.

In Counterfactuals (Harvard: 1973), p. 84, Lewis writes:

I believe that there are possible worlds other than the one we happen to inhabit. If an argument is wanted, it is this. It is uncontroversially true that things might have been otherwise than they are. I believe, and so do you, that things could have been different in countless ways. But what does this mean? Ordinary language permits the paraphrase: there are many ways things could have been besides the way they actually are. On the face of it, this sentence is an existential quantification. It says that there exist many entities of a certain description, to wit "ways things could have been". I believe that things could have been different in countless ways; I believe permissible paraphrase at its face value, I therefore believe in the existence of entities that might be called "ways things could have been". I prefer to call them "possible worlds".

Lewis is thus an extreme realist about possible worlds. To the objection that 'possible worlds might be thought implausible on grounds of parsimony', Lewis answers as follows (Counterfactuals, p. 87): We must first distinguish between qualitative and quantitative parsimony. 'A doctrine is qualitatively parsimonious', Lewis says, 'if it keeps down the number of fundamentally different kinds of entity'. 'A doctrine is quantitatively parsimonious', he says, 'if it keeps down the number of instances of the kinds it posits'. Lewis rightly sees nothing of value in quantitative parsimony, and holds that his realism about possible worlds is not qualitatively unparsimonious; in Counterfactuals (p. 87) he writes:
You believe in our actual world already. I ask you to believe in more things of that kind, not in things of some new kind.

This is realism with a vengeance. It goes far beyond that of Leibniz, who introduced the notion of a possible world. Leibniz often seems willing to treat unrealised possible worlds as mere fictions. For him there are all sorts of important qualitative differences between the actual world and the others arising out of the supposition that it is the one God chose to create; it is, e.g., the only one whose contents are not mere ideas in the mind of God. In Lewis's view, however, the world(s) we inhabit has (have) no special pre-eminence over the others. Indeed, 'the actual world', he says, is like 'the present moment': both expressions are indexical; he writes:¹

I suggest that "actual" and its cognates should be analyzed as indexical terms: terms whose reference varies, depending on relevant features of the context of utterance. The relevant feature of context, for the term "actual", is the world at which a given utterance occurs.

...the fixed meaning we give to "actual" is such that, at any world w, "actual" refers in our language to w.

Now to Anselm.

As we saw in the last section, from 'God is possible' Anselm infers that God is actual. From Lewis's perspective, it appears then that from 'God is in some possible world' Anselm infers that He is in this one—i.e., one we inhabit. Of course, if we are God's creatures, it is natural to expect to find Him here with us; but in the course of a proof of God's existence, we can hardly assume that we are His creatures. Lewis writes:²

¹'Anselm and Actuality', pp. 184-5.
²Ibid., p. 187.
If I am right, the ontological arguer who says that his world is special because his world alone is the actual world is as foolish as a man who boasts that he has the special fortune to be alive at a unique moment in history: the present. The actual world is not special in itself, but only in the special relation it bears to the ontological arguer. Other worlds bear the same relation to other ontological arguers. The ontological arguer has no reason to regard his own actual world as special except in its relation to him. Hence he has not even a weak reason to think that his world differs from some other worlds in being a place of greatest greatness.

According to Lewis, the inference from

(A) God is possible
to

(B) God is actual

obviously fails for some possible worlds. Imagine, e.g., a particularly bad world v—say one 'containing nothing but a small chunk of mud'. In such a world it is hardly plausible to suggest that there is a being than which nothing greater is possible. Now it is as obvious to me as it was to Voltaire that our world is more like v than it is like the best of all possible worlds. Thus, there is something suspect about Anselm's conclusion that God is actual.

Lewis's reasoning, as always, is original and engaging. But in Anselm's behalf we must note that, if we adopt Lewis's indexical analysis of 'actual', then Anselm is not trying to prove the actuality of God, except incidentally. Anselm says (p. 119) that God 'so truly exists that He cannot be even thought not to exist'. If this claim is true, then there cannot be a possible world 'containing nothing but a small chunk of mud' unless, implausibly, God is that chunk. Anselm does not assume that actuality in Lewis's sense is a perfection; indeed, no Medieval philosopher could even accept his analysis of

1'Anselm and Actuality', p. 183.
actuality. Anselm's assumption is rather that the modal counterpart to sempiternity (i.e., existence in every possible world) is a divine perfection. From the perspective of contemporary modal logic, then, to represent Anselm fairly we must construe him as arguing from God's possibility to his necessary existence. We may, I think, avoid some misunderstanding if we consider the ontological argument in the form Leibniz gives it, as follows:¹

Now the idea [of God] contains all perfections, and existence is one, consequently, he exists.

This brief argument purports to prove that God exists, and moves from definitions and necessary premises. Therefore, if valid, its conclusion is also necessary, and so may be represented as follows:

\[ \exists (\text{God exists}), \]

i.e., necessarily, God exists.

3.8 Kant The proposition '\( \exists (\text{God exists}) \)' is one which on Aristotle's principles (as we have represented them; see p. 76) is illegitimate. Though Hartshorne treats Aristotle as an anticipator of Anselm,² Schopenhaur is surely nearer the mark when he says:³

But on! for the prophetic wisdom of Aristotle! He had never heard of the Ontological Proof; yet as though he could detect this piece of scholastic jugglery through the shades of coming darkness and were anxious to bar the road to it, he carefully shows [in Analytica Posteriora, bk II, ch 7] that defining a thing and proving its existence are different matters, separate to all.


eternity; since by the one we learn what it is that is meant, and by the other that such a thing exists. Like an oracle of the future, he pronounces the sentence: "Existence never can belong to the essence of a thing".

If the ontological argument did not achieve much popularity amongst the Scholastics, perhaps they turned away from the argument because they had read in Aristotle:

...since being is not a genus, it is not essence of anything. (Analytica Posteriora 92b12)

Though Aristotle's relation to Kant may be disputed, it is not unnatural to see in this view an anticipation of Kant, particularly when we recall that for Aristotle the question 'What is it for something to exist?' is given up in favor of the question 'What is it for an F to exist?'

As everyone knows, in The Critique of Pure Reason (New York: 1965), 8620-30, Kant argues that "Being" is obviously not a real predicate. (8626) A 'real predicate', he says (8626), is 'a predicate which determines a thing'. A considerable amount of light is shed upon this claim by Kant's often-neglected pre-Critical writings, where he says: 2

Existence is not a predicate or determination of anything.

This sentence appears odd and nonsensical; only it is undoubtedly certain. Take any subject you want, for example, Julius Caesar. Combine all his conceivable predicates together in him, even those of time and place, and you will soon understand that with all these, he can exist, or again, not exist. That being which gave exis-

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2All translations from the Pre-Critical Writings are by Kim Floeck, the original German of which appears in: Koeniglich Preussischen Akademie der Wissenschaften, Kant's gesammelte Schriften, Band II (Berlin: 1912); first quotation, p. 72.
tence to this world and to this hero in it could recognize all these predicates without exception, and yet regard him as merely a possible thing which, without his judgment, doesn't exist.\(^1\) Who can deny that ... in the conception which the highest being has of ["the millions of things which actually are not here"] not a single attribute is lacking, even though existence is not amongst them, since He recognizes them only as possible things. It cannot therefore take place that, when they exist, they will have another predicate, since, in the possibility of a thing after its universal determination, there can be no predicate missing. And if it had pleased God to create a different order of things, a different world, it would have existed with all those determinations and none more, which He yet recognizes about the world, though it be merely possible.

In this passage Kant is reasoning from Leibniz's premises. Assume that for any possible individual \(\alpha\) God knows \(\alpha\) to be \(\beta_1 \& \beta_2 \& \ldots\), where \(\beta_1, \beta_2\) is the complete, though infinite, list of predicates applying to \(\alpha\). Recall that on Leibniz's premises God is able to completely delineate the characteristics of merely possible objects. Now, asks Kant, is 'existence' contained in the list \(\beta_1, \beta_2, \ldots\)? If, as Leibniz's philosophy requires, God can identify \(\alpha\) independently of its existence, then 'existence' itself cannot be contained in the complete list of \(\alpha\)'s predicates. Existence then cannot be a characteristic which enters into the individuation of a mere possible.

If 'exists' were a predicate contained in the complete concept of \(\alpha\), then, since '\(\alpha\) exists' would be true \(a\ priori\), it would be impossible for God not to create \(\alpha\). On the other hand, if 'exists' were a predicate not contained in the complete concept of \(\alpha\), then, since in that event 'nonexis-

\(^1\) Compare this to what Leibniz says in Loemker, p. 336: "Everything that is actual can be conceived as possible, and if the actual Adam will have a certain posterity in the course of time, one cannot deny this same predicate to this same Adam thought of as possible, especially since you agree that God envisages in him all his attributes when he decides to create him."
tent' would be so contained, it would be impossible for God to create $\alpha$.

For, if 'nonexistent' were a predicate characterizing $\alpha$, then, since not exhibiting this characteristic would be $\alpha$, God could not create anything which was not in some way different from $\alpha$. But, since God can do anything which is not impossible, this contradicts the supposition that $\alpha$ is possible. Hence, 'exists' is neither contained in nor excluded from the complete list of $\alpha$'s predicates. It follows that 'exists' is not predicable of $\alpha$.

But, if 'exists' is not predicable of $\alpha$, we are left wondering how it functions in sentences; Kant writes:¹

When I imagine that God by his almighty word commanded a possible world to BECOME, he doesn't thereby confer onto the WHOLE which he, in his understanding visualizes, any new determinations; he doesn't add even one new predicate, but rather he sets out that order of things, in which all was otherwise only relationally placed onto the WHOLE, with all predicates absolutely or just generally. The relations of all predicates to their subjects never indicate an existing thing, for in that case the subject would have had to be previously set out as already existing. "God is almighty" must remain a true sentence even in the judgment of him who does not recognize God's existence, so long as he understands well how I take the concept of God. Alone his existence must belong without mitigation to the way in which his concept is set out, since it [existence] will not be found in the predicates themselves. And when the subject is not already given as existing, then it remains undetermined with each predicate whether it belongs to an existing or a merely possible subject. Existence therefore cannot be itself a predicate. I say: God is an existing thing, so it seems as though I am expressing the relation of a predicate to the subject. Already there lies an error in this expression. Exactly stated, it should read: Some existing thing is God, that is, those predicates which together we take to characterize God, come onto an existing thing.

In this passage we find a clear anticipation of the now widely accepted view

¹Kant's gesammelte Schriften, p. 74.
that existential judgments are to be explained in terms of predicate instantiation (or non-instantiation) rather than in terms of individual possession (or non-possession) of some characteristic. By his deliberate preference for 'some existing thing is God' over 'God is an existing thing', Kant has shown that he wishes to express God's existence as '(\exists x)Gx', where 'G' stands for the predicate 'is God'. He declines to express the assertion of God's existence as the singular proposition Eg, where 'E' stands for the predicate 'exists' and 'g' for the name 'God'.

In their proofs for the existence of God Anselm implicitly and Leibniz explicitly move from God's possibility to His existence. To this move Kant objects:

When one wants to prove that an absolutely necessary being exists, one cannot introduce existence by way of merely possible concepts, as men are wont to do. One searches in vain amongst the predicates of such a possible being: existence will most assuredly not be found amongst them.

We have already seen Kant's reason for this pronouncement. It is that 'exists' is not predicable of individuals; this is what he means by saying that 'Being' is not 'a predicate which determines a thing'. Therefore, the complete concept of any individual will neither include nor exclude existence.

But, if, as Kant believes, 'exists' is not predicable of individuals, one wonders what it is predicable of. Frege, whom Kant anticipates, answers that 'exists' is predicable of concepts, not individuals. To say that something exists is in his view to say that some concept is instantiated; in The Foundations of Arithmetic (New York: 1960), section 53, Frege writes:

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1Kant's gesammelte Schriften, p. 73.
Because existence is a property of concepts, the ontological argument for the existence of God breaks down.

Similarly, in 'Logical Atomism', as reprinted in Marsh, R., ed., Logic and Knowledge (London: 1956), p. 328, Russell says:

An important consequence of the theory of descriptions is that it is meaningless to say "A exists" unless "A" is (or stands for) a phrase of the form "the so-and-so". If the so-and-so exists, and x is the so-and-so, to say "x exists" is nonsense. Existence, in the sense in which it is ascribed to single entities, is thus removed altogether from the list of fundamentals. The ontological argument and most of its refutations are found to depend upon bad grammar. (See Principia Mathematica, *14.)

But the claim that a certain expression is not predicatable of individuals must be made relative to a given language. It might be true relative to (say) the language of Principia Mathematica but false relative to another. In section 3.3 I made my case for treating 'existens' as a predicate of individuals in the formalized Latin of certain Medieval philosophers. Moreover, in section 3.6 I showed that Anselm reasoned from a concept of Deus which he shares with other Latin authors, some of whom not even in the Christian tradition. Thus, no matter what Kant and others have to say about the status of 'exists' as a predicate, it may remain true that 'Deus est existens' expresses a proposition which is analytic in Latin. This is a result with which Anselm no doubt would be content. I indeed believe that 'Deus est existens' expresses an analytic truth in the formalized Latin of certain Medieval philosophers. But I do not infer from this that God exists. I rather infer that 'God exists' does not mean what 'Deus est existens' means. We will see that whatever 'Deus est existens' means it is nothing which can be said in English.

We may distinguish Parmenidean and non-Parmenidean languages as follows: in a Parmenidean language the predicational and existential uses of 'to be' are not independent; in a non-Parmenidean language they are. In the course of this thesis I will argue that (a) Parmenidean and non-Parmenidean languages
must analyze the concept of existence in radically different ways, and (b) 
English is Parmenidean in structure.

Let us close this section with the observation that reasoning from 
Leibniz's premises we were led to the conclusion that 'exists' is not a predi­
cate of individuals. In the next chapter, again reasoning from Leibniz's 
promises, we will be led to the conclusion that it is a predicate of indivi­
duals. On pp. 112-3 we represented Leibniz as alternating between Parmeni­
dean and non-Parmenidean viewpoints; that is merely the surface of a problem 
in his metaphysics. We will see that his Christian Weltanschauung sets an 
impossible task for him which commits him to both points of view.

3.9 Gaunilo If, as I believe, Anselm's modern critics are speaking 
a radically different language from that spoken by Anselm, there is a danger 
that there will be no common ground for discussion. It may therefore repay 
our efforts to see what his contemporary critics had to say against the ont­
tological argument. They may find features of the argument which, even when 
Anselm's general point of view is assumed, are nevertheless defects in it.

The first attack upon the ontological argument came from Anselm's con­
temporary Gaunilo, to whom Anselm replies (pp. 168-91). Amongst other things, 
Gaunilo objects (as many after him were to) that, if Anselm's argument could 
be used to prove the existence of God, it could be used to prove the exist­
tence of anything—say, a 'lost Island'; he writes (pp. 163-5):¹

They say that there is in the ocean somewhere an island 
which, because of the difficulty (or rather the impossi­
sibility) of finding that which does not exist, some have 
called the "lost Island". And the story goes that it is 
blessed with all manner of priceless riches and delights

¹In his edition of the Proslogion Charlesworth includes Gaunilo's criti­
cism of Anselm; parenthetical page references to Gaunilo are to Charlesworth.
in abundance, much more even than the Happy Isles, and, having no owner or inhabitant, it is superior everywhere in abundance of riches to all those other lands that men inhabit. Now, if anyone tells me that it is like this, I shall easily understand what is said, since nothing is difficult about it. But if he should then go on to say, as though it were a logical consequence of this: You cannot any more doubt that this island that is more excellent than all other lands truly exists somewhere in reality than you can doubt that it is in your mind alone; and since it is more excellent to exist not only in the mind alone but also in reality, therefore it must needs be that it exists. For if it did not exist, any other land existing in reality would be more excellent than it, and so this island, already conceived by you to be more excellent than others, will not be more excellent.

Though modern critics of the ontological argument often return to Gaunilo's "lost island," Anselm simply dismisses the objection, saying (p. 175):

Now, I truly promise that if anyone should discover for me something existing either in reality or in the mind alone—except "that than which a greater cannot be thought"—to which the logic of my argument would apply, then I shall find that lost Island and give it, never more to be lost, to that person.

In Bonaventure, however, (who accepts the ontological argument) we find an explicit answer to Gaunilo's objection:

Against the objection of an island than which nothing better or greater can be conceived, we must say that there is no similarity [between this subject and this predicate]. For when I say "a being than which nothing greater can be conceived", there is no repugnance here between the subject and the predicate, so that this being can be conceived in a rational way. But when I say "an island than which nothing greater can be conceived", there is a repugnance between the subject and the predicate. For "island" refers to a defective being, while the predicate designates the most perfect of beings.

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Therefore, since there is a direct opposition here, this island is conceived irrationally, and in thinking it the mind is divided against itself. It is no wonder, therefore, that we cannot infer that this island exists in reality. It is otherwise, however, in the case of "being" or "God", since this is not repugnant to the predicate.

As I understand him, Bonaventure claims that there is an inconsistency in the concept of an island than which nothing greater can be conceived. We need not concern ourselves with the truth of this claim. It is enough to note that Bonaventure is right at least to this extent: if the concept of this island were inconsistent, then its existence could not be established by the ontological argument or any other means.

Bonaventure's answer to Gaunilo thus raises an interesting question—viz., how do we know that the concept of God is consistent? Obviously, if it is not possible for something to be that being than which none greater can be conceived, then this concept will be uninstantiated, and the ontological argument will fail. As we saw, Anselm assumed (P2) that God is possible. Significantly, when Gaunilo doubts that God is in the mind (is possible), Anselm says (p. 169):

Now my strongest argument that this is false is to appeal to your faith and to your conscience. Therefore, "that than which a greater cannot be thought" is truly understood and thought and is in the mind and in thought.

Anselm begins his reply to Gaunilo (p. 169) with the remark that he will not answer the Fool who doubts God's existence, but only the 'orthodox Christian' (Gaunilo) who doubts merely the validity of his argument. Nevertheless, in a discussion of an argument purporting to prove God's existence it is not proper to appeal to 'faith and conscience', particularly since this argument was offered initially at least as a reply to the Fool who says that there is no God.
In his presentation of the ontological argument Malcolm says:  

I do not know how to demonstrate that the concept of God—that is, of a being a greater than which cannot be conceived—is not self-contradictory. But I do not think that it is legitimate to demand such a demonstration. I also do not know how to demonstrate that either the concept of a material thing or the concept of seeing a material thing is not self-contradictory.

With these remarks I do not at all agree. Because we encounter material objects in our experience, their possibility is guaranteed; similarly, because seeing such objects is something we in fact do, there can be no impossibility in doing so. But the concept of God qua transcendental being is not given in experience, and so there is a special point to establishing its possibility. As Russell remarks, impossible objects are 'apt to infringe the law of contradiction'. If the concept of God is absurd, then from the same premises that we deduced his existence we can also deduce his nonexistence.

It must therefore be viewed as a serious omission that Anselm did not undertake to establish God's possibility. Leibniz acutely observes:

Whatever the conclusions which the Scholastics and others derived from the concept of that being whose essence it is to exist, they remain weak as long as it is not established whether such a being is possible.

Leibniz is not quite fair to the Scholastics, however. In De Primo Principio Duns Scotus does undertake to establish God's possibility, and concludes by means of an argument I do not follow that God conceived of as the possessor of every perfection is possible; see Wolter, A., tr, Duns Scotus: Philoso-

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3 Loemker, p. 165.
phical Writings (New York: 1962), pp. 76-7, where Duns Scotus 'touches up Anselm's argument'. Duns Scotus even anticipates Leibniz himself by saying 'si potest esse ..., potest esse a se, et ita est a se'--i.e., if it (God) can be..., then it follows that it can exist of itself, and consequently that it does exist of itself. In Leibniz, as we will see in the next chapter, there is a clear argument for God's possibility; and we will also see that in his philosophy there is a special reason to establishing God's possibility before arguing for his existence. But these are matters we leave for the next chapter.

3.10 Conclusion Our aim in this chapter was merely to set the ontological argument in a certain context, not to deal decisively with it. That is done. We have formulated the contrast between Parmenidean and non-Parmenidean languages. In the next chapter we will see how compelling the ontological argument is when it is formalized in Leibniz's non-Parmenidean language. We will also see that the argument is wrong.
Problems arising out of failure of reference are a main concern of this thesis. Through their use of natural languages people make reference to things and talk about them; it is this human activity which we aim here to analyze. Natural languages lack clear conventions governing the interpretation of such sentences as 'Pegasus is a winged horse', where the subject term is thought to refer to nothing. Because of this lack of convention, we may adopt alternative conventions governing such cases without in any obvious way contradicting the conventions of natural languages. Nevertheless, the formal conventions governing the interpretation of problematic sentences will have implications throughout the whole language; and we may ask whether a certain approach, considered as a whole, satisfies the basic conditions which, in a natural language, must be satisfied in order for people to make reference to things and predicate qualities of them. We have a concept of predication and a concept of existence; we can ask ourselves whether these concepts are correctly expressed in a given language. In this chapter we will consider whether Leibniz's approach to the problems of predication and existence is better suited than Russell's for capturing the basic facts of human discourse. We will argue that of the two approaches Russell's provides a more satisfactory analysis of what people do when they refer to things and talk about them.

Russell on Leibniz In A Critical Exposition of the Philosophy of Leibniz (London: 1964), p. 27, Russell writes:

The assertion of existence alone among predicates, is synthetic, and therefore, in Leibniz's view, contingent. Thus existence has, for him, just as peculiar a position
as it has in Kant's criticism of the ontological proof, and it must be regarded as a sheer inconsequence, in Leibniz, that he failed to apply his doctrine also to God. But for the fact that Leibniz definitely asserts the contrary, one would be tempted to state his position as tantamount to a denial that existence is a predicate at all.

We have seen that Russell is correct in stating that for Leibniz 'exists' must be the sole synthetic predicate; this assumption is involved in his explanation of divine creation. Moreover, there is even a passage in which Leibniz appears to anticipate Kant, as follows:

If existence were something other than an exegency of essence, it would follow that it has a certain essence or adds something new to things, concerning which it could be asked in turn whether this essence exists, and why it rather than another.

These words may have inspired Kant to write:

By whatever and by however many predicates we may think a thing—even if we completely determine it—we do not make the least addition to the thing when we further declare that this thing is. Otherwise, it would not be exactly the same thing that exists, but something more than we had thought in the concept; and we could not, therefore, say that the exact object of my concept exists.

Elsewhere, however, Leibniz contradicts the Kantian line, saying:

Existence is conceived by us as if it were a thing having nothing in common with essence, which nevertheless cannot be the case, because there must be more in the concept of the existent than in that of the non-existent, i.e., existence is a perfection, since there is

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2Critique of Pure Reason, B628.

really nothing else explicable in existence than that it enters into the most perfect series of things.

Russell would probably cite these admittedly contradictory passages as evidence of the inconsistency into which Leibniz supposedly fell in his Christian moments. Russell holds that Leibniz in fact had two philosophies—a public one and a private one. The one was pious, shallow, and inconsistent; the other was logical, profound, and almost wholly consistent. From this imagined discrepancy between private belief and public profession, Russell made treacherous inferences as to the state of Leibniz's character;¹ such inferences are wholly unjustified. Leibniz, more than anyone else, was a Christian philosopher who attempted to take Christian theology seriously. His quantification theory is necessary to make sense of Creation. As we will see, that quantification theory commits him to the ontological argument; and, moreover, it commits him to the argument in precisely the form he states it. We may say therefore that Leibniz accepted the ontological argument while others rejected it, not because of his inconsistency, but because he could see to a further extent where their common principles led.

I treat Leibniz as a Medieval philosopher partly because I see in his philosophy the last credible attempt to integrate the Christian view of reality into a comprehensive system; such systems are, of course, the hallmark of Medieval philosophy. But there are nevertheless important differences between Leibniz and other Medieval philosophers, differences which tie him to modern philosophy. Medieval philosophers generally tried to formalize argument within a natural language (Latin), whereas Leibniz urged the creation

¹See Russell's preface to the second (1937) edition of the Philosophy of Leibniz, and A History of Western Philosophy, p. 581.
of an ideal language, a **Universal Characteristic** in which we would arrive at wonderous results 'by means of words themselves';¹ Leibniz adds:²

Those who will write in this language will not make mistakes provided they avoid the errors of calculation, barbarisms, solecisms, and other errors of grammar and construction.

Once this language is developed³

the human race will have a new kind of instrument which will increase the power of the mind much more than optical lenses strengthen the eyes and which will be as far superior to microscopes or telescopes as reason is superior to sight.

Though Frege distinguishes his **Conceptual Notation** from Leibniz's **Universal Characteristic**, he writes:⁴

> I believe I can make the relation of my "conceptual notation" to ordinary language clearest if I compare it to the relation of the microscope to the eye. The latter, because of the range of its applicability and because of the ease with which it can adapt itself to the most varied circumstances, has a great superiority over the microscope. Of course, viewed as an optical instrument it reveals many imperfections, which usually remain unnoticed only because of its intimate connection with mental life. But as soon as scientific purposes place strong requirements upon the sharpness of resolution, the eye proves to be inadequate. On the other hand, the microscope is perfectly suited for just such purposes; but, for this very reason, it is useless for all others.

Frege, Leibniz, and Russell all hold that natural languages are somehow imperfect, and that logical analysis requires us in various ways to depart

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²'Preface to the General Science', as contained in *Wiener*, p. 16.

³'On the Universal Characteristic', as contained in *Loemker*, p. 224.

from the conventions of natural languages. This is not a view I disagree with; but I do not hold it in the extreme way that these philosophers do, who attach little or no importance to the workings of natural languages. Leibniz, e.g., observes that his analysis of propositions 'is far removed from the way we speak', but adds that it doesn't matter.¹

Both Leibniz and Russell would justify their alternative analyses of quantification theory by appealing to ideal languages which supposedly reveal the true analysis of this notion. I cannot make much sense of this view. We can construct a formal language with the properties Leibniz thinks such a language should have; in it, his inferences will hold. But we can also construct a formal language with the properties Russell thinks such a language should have; in it, his inferences will hold. But what reason can we give for preferring one formal language over another as an instrument for use in philosophical controversy? My answer here is to choose the one which most nearly approximates the structure of inference in English. But neither Leibniz nor Russell attached much importance to fidelity to natural language. Natural languages, according to Russell, embody the primitive metaphysics of their ancient authors. But I want the results of our logical analysis to be applicable to natural languages because I want that analysis to explain what we do when we refer to things and talk about them. That this is something which wants explanation should now be evident.

4.2 Necessary and Contingent Truth in Leibniz

When Leibniz was young, Descartes was the dominant figure in European philosophy, and it was Descartes's philosophy which Leibniz hoped to replace with his own. We be-

¹ 'General Inquiries about the Analysis of Concepts and of Truths', as reprinted in Parkinson, p. 82.
gin, therefore, by looking briefly at Descartes's views and their immediate background.

During the Renaissance powerful forces were at work causing traditional belief to decay. Galileo and Copernicus combined to undermine the scientific authority of Aristotle and Ptolemy, while Luther directly attacked the religious authority of the Pope. Luther said that all Christians have 'the power of discerning and judging what is right or wrong in matters of faith'.

The Roman Church was horrified, and thought that Luther's view would surely lead to religious anarchy. But its response to Luther, as represented in Saint Ignatius Loyola, was not altogether satisfactory:

> That we may be altogether of the same mind and in conformity with the Church herself, if she shall have defined anything to be black which to our eyes appears to be white, we ought in like manner to pronounce it to be black.

But, if (as the Church claimed) the individual's private judgments on religious matters are always suspect, then (said critics) even the individual's decision to accept the Church is suspect. Sceptical problems were aggravated when the writings of Sextus Empiricus entered the currents of European thought in the late 15th century, and Renaissance philosophers read:

> ...in order to decide the dispute which has arisen about the criterion [of knowledge], we must possess an accepted criterion by which we shall be able to judge the dispute; and in order to possess an accepted criterion, the

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2Loyola, St. Ignatius, 'Rules for Thinking with the Church', as reprinted in Bettenson, pp. 364-5.

dispute about the criterion must first be decided. And when the argument thus reduces itself to a form of circular reasoning, the discovery of the criterion becomes impracticable, since we do not allow them [the Dogmatic philosophers] to adopt a criterion by assumption, while if they offer to judge the criterion by a criterion we force them to a regress ad infinitum.

Some in the Roman Church welcomed Sextus Empiricus because he questioned the individual competence in judgment to which the heretics appealed. But from their point of view he was clearly a dangerous author, who in the end encouraged philosophers to doubt not only the Pope's authority but in some cases even his existence.

This was the aspect of European culture when Montaigne ordered his famous medal to be struck in 1576 with the inscription *Que scais-je?* [What do I know?]. In the next century Descartes was to offer 'clearness and distinctness' as a criterion, and to ask whether there is any knowledge so certain as to be utterly immune from all doubt. But in his eagerness to refute scepticism and (I believe) find favor with the Church, Descartes was unduly preoccupied with psychological certainty, which he seems at times to have confused with logical necessity. The two notions are distinct. Descartes's own method of doubt reveals, if nothing else, that psychological indubitability is not a criterion of necessary truth. For, having set aside the propositions which may be doubted, Descartes was left only with 'I exist', which though indubitable is presumably nonetheless contingent and not particularly useful. Though Copernicus had removed man from the center of the physical universe, through his preoccupation with the proposition 'I exist' Descartes thus effected a kind of Ptolemaic counter-revolution in the intel-

1See Leibniz, G., New Essays, bk iv, ch 7, sec 7.
lactual sphere. From our present point of view, the forward-looking philoso-
pher of the time was not Descartes but Leibniz. For he attempted to cope
with the problems of scepticism, not by placing knowledge upon a solipsis-
tic foundation, but by developing his Universal Characteristic, the ancestor of
today's formal languages; he writes:  

Reason will be right beyond all doubt only when it is
everywhere as clear and certain as only arithmetic has
been until now. Then there will be an end to that bur-
densome raising of objections by which one person now
usually plagues another and which turns so many away
from the desire to reason. When one person argues, name-
ly, his opponent, instead of examining his argument,
answers generally, thus, "How do you know that your rea-
son is any truer than mine? What criterion of truth have
you?"

Leibniz would thus bring mathematical certainty to all our reasoning.

But in his first meditation Descartes is sceptical even of mathematics,
since we may err in mathematical calculation. Elsewhere he gives as 'a
yet more important reason' for mathematical scepticism the fact that 'the
God who created us can do all that He desires'.  

According to Descartes,
God could have so constituted the world that a different, incompatible set
of mathematical propositions would have been true. It is, he says, owing
only to the limitations of the human intellect that we cannot conceive of
how God might have given us a different system of mathematics.

In his letters to Mersenne, Descartes clearly expresses his concept of

1 On the General Characteristic', Loemker, p. 224.

2 Descartes, R., Principles of Philosophy, as translated in: Haldane,
I, p. 220.

The mathematical truths which you call eternal have been laid down by God and depend on Him entirely no less than the rest of His creatures. Indeed to say that these truths are independent of God is to talk of Him as if He were Jupiter or Saturn and to subject Him to the Styx and the Fates. ...

It will be said that if God had established these truths He could change them as a king changes his laws. To this the answer is: "Yes he can, if his will can change". ...

As for the eternal truths, I say once more that they are true or possible only because God knows them as true or possible. They are not known as true by God in any way which would imply that they are true independent of Him. If men really understood the sense of their words they could never say without blasphemy that the truth of anything is prior to the knowledge God has of it. In God willing and knowing are a single thing in such a way that by the very fact of willing something He knows it and it is only for this reason that such a thing is true. So we must not say that if God did not exist nonetheless these truths would be true. ...

You ask me by what kind of causality God established the eternal truths. I reply: by the same kind of causality as He created all things, that is to say, as their efficient and total cause. For it is certain that He is no less the author of creatures' essence than He is of their existence; and this essence is nothing other than the eternal truths.

Earlier (pp. 111-2) we observed that in Leibniz's view God has power over the existence of things, but not over their essences. But we find Descartes saying that God controls both essence and existence. On this view, God might have made Judas however He liked but chose to him a sinner rather than a good man. We should expect to find in Leibniz a strong opponent of this view, and in fact we do; he writes:²

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²Loemker, p. 181n7.
I know that it is the opinion of Descartes that the truth of things depends on the divine will; this has always seemed to me absurd. For thus the necessity of the divine existence, and therefore of the divine will, itself depends on the divine will. Thus it will be a nature prior, yet posterior to itself. Besides, the principle of necessary truths is only this: that the contrary implies a contradiction in terms, ... Since then the incompossibility of contradictories does not depend on the divine will, it follows that neither does truth depend on it. Who would say A is not non-A because God has decreed it?

Descartes wished to make even the eternal truths of mathematics subordinate to the divine will, since (in his view) God could have so constituted the world that the theorems of mathematics would have been false. This amounts to treating such truths as contingent, and perhaps explains why in the first meditation he will not treat them as indubitable. But whatever their status, for the reasons Leibniz gives, God obviously could not have so constituted the world that He Himself would not have existed. Therefore, at least the proposition 'God exists' will be necessary in a sense which is independent of the divine will.

Leibniz, of course, believes that the truths of mathematics are not in any sense dependent upon the will of God. But Descartes thinks that by altering the nature of circles, e.g., God could have made it false that all the lines drawn from the center of a circle to its circumference are equal; to Mersenne, he says as much. But to say that God could have altered the essential nature of circles is to say that He could have created something which was a circle but which did not possess the defining properties of circles. To this, Leibniz would answer that, if something does not possess these properties, it is not a circle but something else.

In Leibniz's view, the distinction between necessary and contingent truths comes to this: those truths which are independent of the will of God
are necessary, and those which are dependent upon His will are contingent; see Monadology, number 46. It is customary today to say that Leibniz distinguished between necessary and contingent truths in the following way: a necessary truth is one which is true of every possible world, and a contingent truth is one which is true of the actual, but not of every possible, world. So far as I know, however, these definitions do not occur in Leibniz. They are in fact utterly foreign to the whole spirit of his thought as I understand it. The interpretation of Leibniz which I reject is well-stated by Mates:¹

Instead of employing a simple dichotomy between truth and falsehood, Leibniz in effect relativizes these concepts to possible worlds. Given a sentence and a possible world, the sentence is said to be true or false of that possible world. Thus, the sentences, "Caesar crossed the Rubicon" and "Adam was the first man", are true of the actual world but false of infinitely many other possible worlds. ... On the other hand, the sentence, "Either Caesar crossed the Rubicon or he didn't, in the sense that either it is or it is not the case that he did, is true not only of the actual world but of all possible worlds. Such sentences are called by Leibniz necessary truths ("truths of reason", "eternal truths", etc., C 18, NE 714). Sentences true of the actual world but not of all possible worlds are contingent truths ("truths of fact").

I hold that relativizing truth-value to possible worlds is just what Leibniz did not do, and that Mates's account makes sheer nonsense of Leibniz's philosophy.

We have seen that in Leibniz's view (pp. 111-2) God has power over the existence of things, but not over their natures;² for, when He creates some-


²That is why Leibniz often suggests that existential propositions are the only contingent ones; in Crua, G., ed., G.W. Leibniz: Textes Inedits (Paris: 1948), p. 288, e.g., he says 'all truths about contingents, i.e., about the existence of things ...'.


thing, it is always something of a completely determinate nature. Otherwise, God would have to follow the course of events in the world in order to learn the nature of his creatures. But this would be inconsistent with both divine sovereignty and omniscience. Because not even God can alter the properties of individuals, it may be said that they possess their properties necessarily—or, as Mates puts it (p. 337), exist in but one possible world. This is a correct way of putting Leibniz’s view, but notice how for Leibniz this view undermines the doctrine that a necessary truth is one which holds in every possible world. Leibniz thinks the ontological argument sound. On the Mates interpretation of his modal logic, then, he thinks ‘God exists’ true of every possible world. It follows on this supposition that he is committed to the view that there is only one possible world, since he also holds that an individual exists in one and only one possible world. But this is the view of Spinoza, which through his talk of possible worlds Leibniz hopes to refute.\footnote{Leibniz sometimes goes wrong, but never this quickly.}

When we look at what Leibniz actually says, we see that he approaches the necessary/contingent distinction differently from how contemporary modal logicians approach it. In Parkinson, p. 77, he characteristically writes:

\begin{quote}
Every true proposition can be proved; for since (as Aristotle says) the predicate is in the subject, or, the concept of the predicate is involved in the concept of the subject when that concept is completely understood, then it must be possible for a truth to be shown by the analysis of terms into their values, i.e those terms which they contain.

A true necessary proposition can be proved by reduction to identical propositions, or by reduction of its opposite to contradictory propositions; hence its opposite is called “impossible”.
\end{quote}

\footnote{See, e.g., Loemker, pp. 168-9, and p. 273.}
A true contingent proposition cannot be reduced to identical propositions, but is proved by showing that if the analysis is continued further and further, it constantly approaches identical propositions, but never reaches them. Therefore it is God alone, who grasps the entire infinite in his mind, who knows all contingent truths with certainty.

So the distinction between necessary and contingent truths is the same as that between lines which meet and asymptotes, or between commensurable and incommensurable numbers.

In section 13 of the Discourse on Metaphysics Leibniz remarks that all contingent propositions 'have proofs a priori'. In view of these passages, then, we may represent Leibniz's distinction between necessary and contingent propositions as follows: In an ideal language every true proposition has a formal demonstration. When that demonstration involves a finite number of steps, the proposition thus demonstrated is called necessary; otherwise, it is called contingent. There are many passages which suggest that in Leibniz's view only existential propositions are contingent. But, when we say this, it is important to recall that on Leibniz's quantification theory $\forall x \alpha(x)$ is not in general an existential proposition, nor does it in general have existential consequences.

Mates misinterprets the necessary/contingent distinction in Leibniz because he overlooks some basic differences between Leibniz and contemporary modal logicians. An analogy with tense logic may help us to understand these differences. Briefly, Leibniz is to contemporary modal logic what Quine is to contemporary tense logic. Now I will explain. In ordinary language we often use sentences whose truth-values vary from time to time and from speaker to speaker. The sentence 'I am (now) wealthy', e.g., may be true at one moment and false at another; and, as we all know, it may be true when said by one person but false when said by another, though they speak at the same
time. Recently, logicians have taken a keen interest in these variations of truth-value, particularly in the ones over time. But more traditional logicians (e.g., Quine) do not believe that it is the business of logic to import into its systems the tense distinctions and other idiosyncrasies of ordinary language. As an interpretation of 'p' in logical schema, the more traditional logicians will insist that 'I am (now) wealthy' be replaced by 'a sentence whose truth-value stays fixed through time and from speaker to speaker'; Quine calls such sentences eternal. Thus, in place of 'I am (now) wealthy', for the purposes of logic we might write 'Jeffrey Skosnik is (tense-less) wealthy on 8 January 1977'. This sentence, because it is free of indicator words like 'I' and 'now', has the same truth-value whatever the occasion of its utterance. Eternal sentences remain fixed in truth-value through any variation in the actual circumstances of their utterance. As an extension of this idea, let us consider de-modalized sentences—i.e., sentences which remain fixed in truth-value through any variation in the possible circumstances of their utterance. The sentence 'Jeffrey Skosnik is (actually) wealthy on 8 January 1977' contains the indicator word 'actually' which ties its truth-value to the actual world. But the de-modalized sentence 'Jeffrey Skosnik is wealthy on 8 January 1977 in w₁' has the same truth-value in every possible world. Therefore, if we equate 'truth in every possible world' with 'necessity', then either this sentence or its negation will be necessary.


between necessity and contingency in the manner of contemporary modal logicians.

This analogy is highly misleading, however; and we will see in a moment that it misleads Mates. It is only the existential import of 'to be' which makes 'Jeffrey Skosnik is wealthy on 8 January 1977' a modal sentence whose truth-value is tied to the actual world. But, as we saw, in Leibniz the predicational and existential uses of 'to be' are held independent. Therefore, he will never need to generate de-modalized sentences in the manner suggested by our analogy. But for the qualification 'at t', individuals might exhibit different properties over time. Individuals do persist through time and change. That is why a person may be wealthy at one time and not so at another. But for Leibniz it is not the qualification 'in w_i' which prevents individuals from exhibiting different properties in different possible worlds. It is his substantial position that individuals could not have been characterized by any properties other than those which do characterize them. This assumption is involved in his belief that God has power over the existence of his creatures but not over their natures. If we were to relativize the predicate 'exists' to possible worlds, Leibniz would say that α's possession of β is independent of its existence in w_i (its world) in the sense that it is illegitimate to reason thus: if α had not existed in w_i, it would not have been β. In a sense, therefore, α's nature is independent of the fact that it is in this world rather than some other. That is why Leibniz says, 'each substance is like a world apart, independent of any other thing save God'.

\[1\text{Discourse on Metaphysics}, section 14.\]
generate hypothetical changes in a thing's nature by projecting it into a possible world where the relationships between things are different. In Leibniz's metaphysics, the reason why something is as it is must be found in its individual concept, not in its relationships to other things. The nature of a thing does 'mirror' its world, however; but it has these relationships because it is the kind of thing it is—i.e., relations are 'grounded' in the natures of the things related; see Discourse on Metaphysics, section 9. Thus, Leibniz's supposition that Adam, e.g., has a completely determinate nature qua possible entity makes it impossible for him to tie that nature to the particular facts of Adam's existence; and so he cannot engage in counterfactual speculation about what Adam would have been like had he existed in other circumstances: because the predicational use of 'to be' is held independent of its existential use, Adam's character simply does not depend upon him existing in these circumstances, because it does not depend upon him existing at all.¹

Leibniz writes:²

...I have said that the supposition from which all human events can be deduced is not simply that of the creation of an undetermined Adam but the creation of a particular Adam, determined in all circumstances, chosen out of an infinity of possible Adams. This has given M. Arnauld opportunity to object, not without reason, that it is as little possible to conceive several Adams, taking Adam as an individual, as to conceive of several me's. I agree, but yet, in speaking of several Adams, I do not take Adam for a determined individual. I must, therefore, explain. This is what I meant. When we consider

¹The astute reader will quickly see why Leibniz needed a theory of pre-established harmony to explain the connections between things.

²As cited by Mates in 'Individuals and Modality in the Philosophy of Leibniz', as contained in Studia Leibnitiana, vol. 4 (1972), pp. 103-4
in Adam a part of his predicates, for example, that he was the first man, put into a garden of enjoyment, and that, from his side, God took a woman, and, if we consider similar things, conceived sub ratione generalitatis (this is to say, without mentioning Eve or Paradise or the other circumstances which constitute his individuality), and if we call the person to whom these predicates are attributed Adam, all this does not suffice to determine the individual, for there might be an infinity of Adams, that is to say, of possible persons to whom these would apply who would, nevertheless, differ among themselves. Far from disagreeing with M. Arnauld, in what he says against the plurality of the same individual, I would myself employ the idea to make it clearer that the nature of an individual should be complete and determined. ... We must not, therefore, conceive of a vague Adam or of a person to whom certain attributes of Adam appertain when we try to determine if all human events follow from his presupposition, but we must attribute to him a concept so complete that all which can be attributed to him may be derived therefrom. ... It follows, also, that if he had had other circumstances, this would not have been our Adam, but another, because nothing prevents us from saying that this would be another. He is, therefore, another. It indeed appears to us that this block of marble brought from Genoa would be wholly the same if it had been left there, because our senses cause us to judge only superficially, but in reality, because of the interconnections of things, the universe, with all its parts, would be wholly different and would have been wholly different from the very commencement if the least thing in it happened otherwise than it has.

No individual whose attributes differ from those of Adam can be Adam. Upon this we may agree. But Leibniz seems almost to infer from this that it is impossible for Adam to be different from what he in fact is; he writes:¹

...You will object that it is possible for you to ask why God did not give you more strength than he has. I answer: if he had done that, you would not exist, for he would have produced not you but another creature.

...Just as Hugo of St. Vitor, asked why God favored Jacob but treated Esau with scorn, responded that no other reason can be given for this than that Jacob is not Esau.

¹Both passages are cited by Mates in 'Individuals and Modality', p. 104.
In these passages it perhaps seems that Leibniz thinks an individual can be in only one possible world because otherwise it would have to differ from itself. But this is a sophism which would imply that all change is impossible. Mates, however, seizes upon the argument, and replies:

An attribute, after all, is supposed to be what is expressed by a predicate; so why not consider predicates like "is bald", "is short", etc., as abbreviations for "is bald in the actual world", "is short in the actual world", etc., and for each world $W^I$ add a battery of predicates like "is bald in $W^I$", "is short in $W^I$"? Then Adam, who (let us say) is 5 feet 10, could perfectly well have all attributes in common with an individual, Adam^1, who inhabited the non-actual world $W^I$ and was like Adam in all respects except that he was 5'feet 11 (and had such other attributes as were implied by this difference in height). Thus, both Adam and Adam^1 could have the attribute expressed by "is 5 feet 10 in the actual world" and both could have that expressed by is "is 5 feet 11 in $W^I$". So it does not appear obvious that the claim that individuals are identical only if they have all attributes in common rules out in any way the possibility that the same individual could belong to two possible worlds, even if we grant Leibniz's further thesis that the individuals of a given world are so interconnected with one another that each "mirrors" all the others.

Concerning Mates's remarks I have nothing to say, except that they do not address themselves to what is in Leibniz. From Leibniz's point of view, the idiom 'is F in $W^I$' would simply be inappropriate. We have seen (pp. 123-4) how in his quantification theory the proposition 'Judas is not virtuous', e.g., is tantamount to the proposition that there is no possible world in which he instantiates this predicate. To effectively tie the possession of a property to being in a certain world, it is necessary therefore to argue against the view that the predicational use of 'to be' is independent of its existential use; the sophisms we may leave to one side.

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1 'Individuals and Modality', p. 106.
I have gone into these matters in some detail for two reasons. First, though contemporary modal logicians often cite Leibniz as their anticipator, the history of modal logic is yet to be written; and so the differences between Leibniz and contemporary figures are apt to pass unnoticed. Second, though the Leibnizian proposition $\Box (\exists x)\Phi x$ might seem to mean what a contemporary modal logician would mean by $\Box (\exists x)\Phi x$, the differences in outlook between Leibniz and most contemporary figures make this equation doubtful.

We now conclude this section. Putting together what we've said, the following picture of Leibniz's philosophy emerges: In the Divine Understanding there are infinite number of possible worlds. These worlds contain varying numbers of individual substances, each substance having an inviolate nature which God can realize by creating the world which contains that substance.

In an interesting passage Leibniz observes:

Now this supreme wisdom [God], united to a goodness that is no less infinite, cannot but have chosen the best. For as a lesser evil is a kind of good, even so a lesser good is a kind of evil if it stands in the way of a greater good; and there would be something to correct in the actions of God if it were possible to do better. As in mathematics, when there is no maximum nor minimum, in short nothing distinguished, everything is done equally, or when that is not possible nothing at all is done: so it may be said likewise in respect of perfect wisdom, which is less orderly than mathematics, that if there were not the best among all possible worlds, God would not have produced any. I call "World" the whole succession and the whole agglomeration of all existent things, lest it be said that several worlds could have existed in different times and different places. For they must needs be reckoned all together as one world.

1The formula $\Box (\exists x)\Phi x$ is introduced on p. 123.

or, if you will, as one Universe. And even though one should fill all times and all places, it still remains true that one might have filled them in innumerable ways, and that there is an infinitude of possible worlds among which God must needs have chosen the best, since he does nothing without acting in accordance with supreme reason.

This is, of course, the philosophy which Voltaire ridiculed in *Candide*, asking how Pangloss (Leibniz) could have been so blind as to think this the best of all possible worlds. In fact, however, Leibniz does not reason from the appearance of the world to its goodness. He rather argues that, if this were not the best of all possible worlds, God would not have created it; and so, since he did, it must be the best, appearances notwithstanding. In Leibniz's system, however, such an argument is suspect, for how would things have been different if God had left us uncreated to live out our lives in an unactualized world? Would it then have been false that I am now writing on this page? Not according to Leibniz. One wonders what difference existence makes.

4.3 Leibniz and Russell on Quantification

There are important philosophical differences between Leibniz and Russell which help to explain their differing interpretations of the particular quantifier 'some'. Russell, unlike Leibniz, was opposed in principle to modal logic, and therefore certainly would not have wished modal considerations to intrude upon quantification theory. Moreover, Leibniz had no philosophical reason to argue that propositions cannot be about what does not exist, nor was there a Meinong for him to refute. He rather cheerfully informs us that, 'when I talk of possibilities, I am satisfied if one can form true propositions from them'.¹ We have seen that Leibniz has important theological reasons for this view, reasons that are connected with the identifiability of potential creatures. Russell

believed, however, that one cannot frame propositions about what does not exist.

But what Russell meant by 'about' is not altogether clear, as Whitehead complained in private correspondence to Russell. If, however, we think of a sentence as consisting of a subject 's' and a (perhaps relational) predicate 'is P', then we may say that the sentence 's is P' is about s and that what is said about s is that it is P. Russell's claim that there are no propositions about what does not exist then amounts to a refusal to use non-referring expressions in place of 's'. His logic of course differs from Aristotle's in that for him 'P' at least may be empty, though in Leibniz we have a logic in which both 's' and 'P' may be empty.

Given Russell's exclusion of empty subject terms, it was reasonable for him to claim, albeit somewhat paradoxically, that, if something 'has any property whatever, it must exist'. But Leibniz would say that 'Pegasus is a winged horse', e.g., is a true sentence because being a winged horse is part of the individual concept God has of Pegasus. According to Russell, it is neither true nor even about Pegasus: there is no Pegasus about which it could be true.

According to the Mates interpretation of Leibniz, Leibniz, like Russell, would have thought it false that Pegasus is a winged horse. Mates says that we are justified in attributing the following principle to Leibniz: 'A singular name N is non-denoting if and only if every atomic sentence containing it is false'. In apparent support of this interpretation, Leibniz says:

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2Leibniz on Possible Worlds', pp. 344-9.  
3Parkinson, p. 47.
"Non-entity" is that which is purely privative, i.e. is the privative of everything, or, not-Y; that is, not-A, not-B, not-C, &c. This is what is meant when it is commonly said that nothingness has no properties.

This passage might seem to support the Mates interpretation; but, when we recall our analysis (p. 121) of how Leibniz uses 'ens', we see that this passage simply means that an impossible object cannot be the subject of a true atomic proposition. In support of his interpretation Mates does, however, cite what seems to be conclusive textual evidence: '(I consider) as false', he quotes Leibniz as saying, 'every proposition that lacks an existent subject or real term'. When we refer to the original text, however, we see that what Leibniz in fact said is better translated as '(I consider) as false every proposition that lacks a consistent subject or real term'.

We can, I think, best understand Leibniz's reasoning concerning inconsistent subject terms by contrasting it to Russell's reasoning concerning non-refering subject terms. It is at least in the spirit of Russell's analysis to hold that 'A singular name N is non-refering if and only if every atomic sentence containing it is false'. It is true, of course, that in Russell's system there cannot be any non-refering singular terms. But, if he were to allow their introduction without otherwise modifying existential generalization, then he would be committed to this principle. For 'Pegasus is a winged horse', e.g., would then imply the existence of winged horses.

1'Leibniz on Possible Worlds', p. 345.

2'Ut scilicet maneat omnem propositionem vel veram vel falsam esse, falsam autem omnem esse deest constantia subjecti, seu terminus realis'. Couturat, L., ed., Opuscules et Fragments inédits de Leibniz (Paris: 1903), p. 393. For a use of 'constantia subjecti' which seems better suited to the Mates interpretation than to mine, see Langley, A., tr, New Essays, p. 516.
and, hence, would be false. Moreover, Russell eliminates non-referring quasi singular terms in favor of descriptions which apply to nothing; and, according to his analysis, all the propositions are false in which such descriptions have primary occurrence.

In terms of his views on predication, one can see why Russell should have thought it a positive virtue of his analysis of non-referring quasi singular terms that it confers falsity upon all propositions containing such terms in primary positions. For it certainly seems reasonable to move from 's is P' to 'something is P', and to do so without the addition of any further premises: if, e.g., Pegasus is a winged horse, then something—namely, Pegasus—is a winged horse. But for Russell the particular quantifier '3' ranges over the contents of the actual world. Consequently, if 's' fails to denote something which actually exists, no proposition of the form 's is P' can be true. Otherwise, existential generalization would be invalidated.

For Leibniz, however, the particular quantifier 'Σ' is supposed to range over the contents of all possible worlds, not merely those of the actual world. This eliminates the existential commitment implicit in Russell's use of the quantifier. But, just as Russell must somehow exclude terms which purport to pick out nonexistent objects, so Leibniz must somehow exclude terms which purport to pick out impossible objects; hence, his supposition of consistency for subject terms in true propositions. Without this supposition, the inference from 's is P' to 'something is P' would be invalidated in his system. Thus, in place of Russell's existential assumptions consistency assumptions must run throughout Leibniz's system—i.e., in place of Russell's assumption that every singular term refers to an actual individual, Leibniz has the assumption that a consistent individual concept is associated with every singu-
lar term.

In recent years Russell's existential assumptions have been viewed with increasing suspicion by logicians who have developed systems which purport to free logic of these unwanted existential presuppositions. Consider, e.g.:

(1) \( F(\exists x)Fx \),

i.e., the x which is F is F. Although there are philosophers who think (1) a tautology, it is not deducible in *Principia's* system unless one assumes that the x which is F exists, since existence is presupposed in every predicational claim. Russell seems to have thought that the acceptance of (1) would lead to contradiction.¹ He was right. Commenting on an early system of Hintikka's in which (1) is deducible,² Lambert showed that, if we replace '\((\exists x)Fx\)' by '\((\exists x)(Fx \& \neg Fx)\)', (1) leads to the following contradiction:³

(2) \( F(\exists x)Fx \& \neg F(\exists x)Fx \),

i.e., the x which is F is F, and it is not the case that the x which is F is F. Here at least Russell's existential assumptions are put to good use, for in his system the most we can deduce is the following:

(3) \( \neg E(\exists x)(Fx \& \neg Fx) \),

i.e., the x which is F and not F does not exist.

The derivation of (2), the contradiction, can be blocked in Leibniz's system by means of a weaker assumption than the existential assumption Rus-


sell makes. Leibniz remarks that a definition must be consistent, 'for if it concealed some contradiction or impossibility, opposite conclusions could be drawn from it'. This is, I think, his fundamental reason for excluding inconsistent terms from his calculus; and in this he has displayed his usual competence. In his system, because every sentence containing an inconsistent subject term is false, the x which is F will not be F unless it is possible for it to be F. Hence, Leibniz does not assert (1) but rather

\[(4) \ P(\exists x) \rightarrow F(\exists x)Fx,\]

i.e., if the x which is F is possible, then it is F. In place of (2) then the most we can deduce in Leibniz's system is the following:

\[(5) \ \neg P(\exists x)(Fx \& \neg Fx),\]

i.e., the x which is F and not F is not possible.

In connection with the contradiction, (2), Leibniz thus reaches a stronger results by means of a weaker assumption than Russell makes—i.e., Leibniz is able to assert the impossibility of the x which is F and not F; whereas, Russell must rest content with a mere denial of its existence. Russell himself was aware of this limitation in his theory; to Meinong he writes on 5 November 1906:

> With regard to impossible objects I am in no way deterred by the consequence that, according to my theory, the golden mountain should be put into the same class as the round square, ... As you know, there is for me no fundamental concept of necessity: consequently, I cannot distinguish between impossible and non-existent objects.

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In view of the limitations in Russell's account, the considerations relative to (1) tend to show that, as Leibniz believed, predication does indeed presuppose consistency, and that we could never individuate something to which an inconsistent description supposedly applies. It is therefore tempting to mollify Russell's critics by systematically replacing Russell's existential assumptions in quantification theory with Leibniz's consistency assumptions. The resulting analysis would be more comprehensive than Russell's, since it would permit the employment of non-referring singular terms, such as 'Pegasus' (to which, however, consistent individual concepts must be assigned). Our aim in this chapter then will be to develop a logic along the lines which Leibniz envisages, and to distinguish it from Russell's logic.

4.4 Definite Descriptions and the Ontological Argument

We assume the following definitions in behalf of Leibniz in order to generate a Leibnizian theory of descriptions:

\[ G(\exists x)Fx =_{df} (\exists x)[Fx & (\forall y)(Fy = y = x) & Gx] \]
\[ P(\exists x)Fx =_{df} (\exists x)[Fx & (\forall y)(Fy = y = x)], \]

where 'P' stands for 'possible'.

Some sample theorems. Corresponding to *14.21, *14.22, and *14.23 of Principia, we have, respectively, the following theorems in Leibniz's system:

L14.21: \[ G(\exists x)Fx \rightarrow P(\exists x)Fx, \]

i.e., if the x which is F is anything, it is possible.

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1The quantifiers 'Σ' and 'Π' were introduced on p. 123.

2For the theory of descriptions generally, by replacing each occurrence of 'E' by one of 'P' in a given theorem of Principia, one can generate the theorem in Leibniz's system which corresponds to the theorem in Russell's system.
L14.22: \( P(\forall x)Fx \equiv F(\forall x)Fx, \)

i.e., the \( x \) which is \( F \) is \( F \) if and only if it is possible.

L14.23: \( P(\forall x)(Fx \land Gx) \equiv F(\forall x)(Fx \land Gx), \)

i.e., the \( x \) which is \( F \) and \( G \) is \( F \) if and only if it is possible.

Leibniz states the ontological argument as follows: God 'contains all perfections, and existence is one, consequently, he exists'.¹ As Kant and others have observed, this argument assumes 'exists' to be a predicate; for the moment, we grant the assumption. The argument has the following structure:

(A) \( \text{God} = df (\exists x)(Ex \land \ldots), \)

where 'E' stands for 'exists', and '\ldots' for whatever else applies by definition to God. This assumes that there is a definition of 'God' qua singular term; for the moment, we grant the assumption, and proceed to the next premise:

(B) \( E(\exists x)(Ex \land \ldots), \)

i.e., the \( x \) which exists and is \( \ldots \) exists. Whence it follows:

(C) Therefore, \( E(\text{God}), \)

i.e., God exists.

Given (A), we can use 'God' and '(\exists x)(Ex \land \ldots)' interchangeably. Therefore, given (B), (C) follows. But why assume (B)? Since the argument purports to move from definitions and tautologous premises, (B) must be introduced as a logical truth. Neither Russell nor Leibniz, however, would so regard (B). (B) is a special case of:

(1) \( F(\exists x)(Fx \land Gx), \)

the acceptance of which we have already seen to lead to contradiction.

In Russell's case, the closest we can come to (1) is the following:

(2) \( E(\exists x)(Fx \land Gx) \rightarrow F(\exists x)(Fx \land Gx), \)

i.e., if the x which which is F and G exists, then it is F. Therefore, so far as Russell is concerned, (B) must be replaced by the following:

\[(B') \; E(\exists x)(\exists x \land ...) \rightarrow E(\exists x)(\exists x \land ...).\]

(A) and (B'), however, do not imply (C) unless we can establish independently of (C) the hypothesis of (B'). Therefore, given what that hypothesis says, before the ontological argument can be completed we need an auxiliary, independent proof that God exists. But, if we had such a proof, we would not need the ontological argument. Therefore, on Russell's reasoning the ontological argument is useless, or fallacious.

The situation is altogether different for Leibniz, however. Though he says that the argument is 'very imperfect', he adds that it 'proves at least that God exists necessarily if he is possible'.\(^1\) Once again we find an existential assumption in Russell replaced by a modal assumption in Leibniz; this is, of course, the correct move for Leibniz to make with respect to the ontological argument. For in his case (B) must be replaced not by (B') but by

\[(B'') \; P(\exists x)(\exists x \land ...) \rightarrow E(\exists x)(\exists x \land ...),\]

i.e., if the x which exists and is ... is possible, then it exists. Assuming God to be possible, then (A) and (B) prove his existence. For the shift from the existential hypothesis of (B') to the modal hypothesis of (B'') blocks the charge that the ontological argument presupposes the existence of God: in Leibniz's logic existence is not a presupposition of predication.

At this point, Leibniz has only to establish the possibility of God

\(^1\)Discourse on Metaphysics, p. 41.
in order to assert the conclusion of the ontological argument; toward that end he argues:¹ 

By a perfection I mean every simply quality which is positive and absolute or which expresses whatever it expresses without any limits.

But because a quality of this kind is simple, it is unanalyzable or indefinable, for otherwise either it will not be one simple quality but an aggregate of many or, if it is one, it will be contained within limits and hence will be understood through negation of what is beyond these limits; which is contrary to hypothesis, since it is assumed to be purely positive.

From this it is not difficult to show that all perfections are compatible with each other or can be in the same subject.

Leibniz seems to reason as follows. Let \( P_1, \ldots, P_n \) be a complete list of perfections—i.e., atomic, positive predicates (in an ideal language). A predicate, \( P_i \), is positive, we shall say, if and only if, given any atomic predicate \( A \), being \( P_i \) does not entail being \(-A\). It is doubtful whether any predicate is in this sense positive, but we will assume that in Leibniz's ideal language there are positive predicates in this sense. Now, since every \( P_j \) is atomic, no \( P_i \) is equivalent to any \(-P_j \). Therefore, the list \( P_1, \ldots, P_n \) is internally consistent. Therefore, something could be \( P_1 \land \ldots \land P_n \). Q.E.D.,

Though Russell comments that Leibniz's 'reasoning is certainly valid',² from Leibniz's own point of view there is a serious lacuna in the argument.

¹Loemker, p. 167. But see Parkinson, p. 64, where Leibniz makes the uncharacteristic remark: 'If I say \( A = EFG \), then I must know not only that \( E, F, \) and \( G \) are severally possible, but also that they are compatible with each other. But it is evident that this cannot be done except by experience'. (On the matter of establishing possibility, Leibniz said different things at different times; we will see in a moment that there is a problem here for him.)

²Russell, B., Philosophy of Leibniz, p. 174.
This argument, if valid, establishes the possibility of a being whose attributes are 'unanalyzable or indefinable', whereas in Leibniz's own view existence is not such an attribute. Therefore, even if we give Leibniz his proof that God's indefinable attributes are compatible, we need an additional proof that these attributes are compatible with the definable attribute of existence before we can conclude that the x which is ... and existent is possible.

I offer the following proof for consideration, though it is one from which we will deduce some anti-Leibnizian consequences. To say that a given description is internally consistent is just to say that something satisfying that description could exist. Hence, 'existence' cannot be incompatible with any description which is otherwise consistent. In Leibniz's system, therefore, where 'exists' is treated as a predicate of individuals, we have the following principle:

\[
P(\exists x)Fx \rightarrow P(\exists x)(Ex \land Fx),
\]

i.e., if the x which is F is possible, then the x which is existent and F is possible. It follows that, if in (B'') '...' is internally consistent, then 'Ex & ...' is as well. Therefore, given the proof that \( P(\exists x)(...) \), it follows that God is possible and therefore existent. Q.E.D.

The difficulty with (3), however, is that in Leibniz's system it can be used to transport anything from the realm of mere possibles into the real world. By L14.22, if the x which is F is anything, it is possible. By (3), if it is possible, then the x which is F and existent is possible. By L14.23, if the x which is F and existent is possible, it exists. If we assume (3), therefore, even in Leibniz's system the possibility of predating anything

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1See, e.g., Parkinson, p. 51, where Leibniz says "existent" can be defined ...'
of an F-type object would depend upon there existing something which is F. We would in that event be brought back to Russell's position that the predicational use of 'to be' is not after all independent of its existential use. But along the way back to this position we would have picked up a lot of debris, such as the existent king of France.

(3) is, in a way, a plausible principle to assert. For, if it is possible for something to be F, then surely something can exist which is F; and that is all (3) asserts. There is a difficult passage in Leibniz where he seems aware that 'existence' cannot be incompatible with the properties in a description which is otherwise consistent; he writes:¹

But it is asked what "existent" means: for an existent is an entity, i.e., a possible and something else. All things considered, I do not see what is conceived in "existent" other than some degree of entity, since it can be applied to various entities. Though I would not wish to say that "that something exists" is possible, i.e., possible existence. For this is simply essence itself; we, on the other hand, understand actual existence, i.e., something added to possibility or essence, so that in that sense possible existence would be the same as actuality abstracting from actuality, which is absurd.

As I understand him, Leibniz is here objecting to the predicate 'possibly existent' on the grounds that, although 'possibly red', e.g., means more than simply 'possible', 'possibly existent' does not. If this is so, however, then 'existence', unlike 'redness', could not function as the differentia for any proper species of possible entity. Yet in Leibniz's version of the ontological argument God is a species infima whose differentia is 'existence'.

In general, to say of something that it is possibly F is to say that it

¹Parkinson, p. 65.
could be F. Therefore, something is possibly red, e.g., if it could be red. Similarly, something is possibly existent if it could exist. But to say that something could exist, as Leibniz seems in the above passage to realize, is just to say that it is possible. Whereas, to say that something could be red is to say that something having a certain property—namely, redness—is possible. In modal contexts, therefore, 'existence' and 'redness' function differently. Therefore, 'possible existence' must receive a different analysis from 'possible redness'. But what that analysis is to be Leibniz does not tell us, nor have others who have employed this curious predicate \( \forall \).

4.5 A Problem in the Metaphysics of Leibniz

Russell thought that 'existence' is a predicate of predicates rather than of individuals. That is to say, he thought that all existential claims, properly analysed, manifest themselves as claims about the extensions of predicates. Prima facie, this claim is false. If we are given the predicate 'colored', e.g., then, because 'color' is not a predicate of numbers, the result of substituting a numeral into an open sentence with that predicate should be nonsense or at least falsehood. '5 is colored' certainly confirms our expectations. On the other hand, if we are given the predicate 'exists', then, because 'existence' is not a predicate of individuals, the result of substituting the name of some individual into an open sentence with that predicate should also be nonsense or at least falsehood. Yet the sentence 'Nixon exists', e.g., is neither nonsensical nor false.

We may explain this paradox by saying that in the sentence 'Nixon exists'

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the expression 'Nixon', despite its grammatical appearance, is in fact functioning as a predicate rather than a name. Frege's quantification theory provides us with the logical machinery by which to make good this claim. In that quantification theory, the sentence 'Nixon exists' becomes \((\exists x)(x \text{ is } \text{Nixon} \land (\forall y)(y \text{ is } \text{Nixon} \rightarrow y = x))\)', where 'Nixon' occurs in the predicate position, and hence picks out a certain individual in virtue of its properties. Therefore, languages with the '∃' of Frege's quantification theory have no need of an independent existence predicate.

But Leibniz cannot explain existential propositions in this manner, for he rejects Frege's quantification theory. In his system, we cannot capture the sense of 'Nixon exists' by saying \((\exists x)(x \text{ is } \text{Nixon} \land (\forall y)(y \text{ is } \text{Nixon} \rightarrow y = x))\)', for that simply means 'Nixon is possible'. Because we cannot eliminate the existence predicate in favor of an existence-free quantifier, if we are to make any existential claims at all in such a system, an existence predicate must be introduced which is not definable in terms of Leibniz's quantifier, 'Σ'. Having introduced such a predicate, 'Nixon exists', ignoring the uniqueness condition, then emerges as \((\Sigma x)(\text{Nx} \land \text{Ex})\)', where 'E' is defined over individuals—i.e., something (possible) is Nixon and it exists. The problem for Leibniz, then, is to attach a sense to 'existent'; he writes:¹

"Existent" can be defined as "that which is compatible with more things than anything else which is incompatible with it".

Let us now attempt to see what this definition can mean.

With this definition in mind, one might argue, e.g., (though Leibniz

¹Parkinson, p. 51.
presumably would not) that the existence of God is incompatible with that of the devil: if the one exists, the other cannot. In Leibnizian terms, we may say that two individual concepts are **compatible** if and only if they can be instantiated in the same possible world. But before we can explain what it is for **two** individual concepts to be instantiatable in the same possible world, we must explain what it is for **one** individual concept to be instantiatable in a given possible world. Leibniz cannot say that the mutual consistency of the predicates in a given individual concept suffices to establish the possibility of this individual concept being instantiated. For, if the mutual consistency of the predicates in a given individual concept sufficed to show that something answering to this individual concept could exist, then

\[(3) \quad P(\exists x)Fx \rightarrow P(\exists x)(Ex \land Fx)\]

would hold in Leibniz's system. But, as we have seen, (3) leads to disastrous results for Leibniz.

Having excluded impossible terms from his system, 'possible' functions in Leibniz's system as 'exists' does in Frege's. Just as Frege cannot explain what it is for an individual **qua** individual to exist, Leibniz cannot explain what it is for an individual **qua** individual to be possible. But in terms of the extensions of general expressions, it is arguable that Frege's quantification theory can be made to provide an account even of apparently singular existence claims; we will have more to say about this later. The analogous move for Leibniz would be to explain apparently singular possibility claims in terms of the **intensions** (individual concepts) of certain special general expressions. His rejection of (3), however, prevents him from doing so. For, having rejected (3), the joint consistency of \(F_1, \ldots, F_n\) does not suffice to show that something could exist which is \(F_1 \land \ldots \land F_n\).
Thus, even his proof of the possibility of a being with unanalyzable attributes collapses (p. 171), since it tacitly relies upon (3). Because the mutual consistency of predicates in a given individual concept (which ex hypothesi is complete) do not suffice to establish the possibility of individual existence, 'possible' must be introduced in his system as a primitive predicate of individuals whose sense unfortunately must be wholly mysterious. As Leibniz himself remarks, 'It is yet unknown to men what is the reason of the incompossibility of different things'. And in his system it can never be known. We argued earlier (pp. 157-8) that for Leibniz the possession of a property cannot be correlated to existence in a certain world. That is why he would reject the idiom 'is $F$ in $W_i$', and be able to maintain his view that individuals exist in only one possible world. But, when we apply this doctrine to the predicate 'exists' itself, we see that we cannot tell which possible world we are in.

4.6 The Definition of 'Existence'  It is obvious that (3) is not a principle which Leibniz should wish to assert, and he does in a way attack this principle by interpreting 'existence' in a way which makes (3) doubtful. In various passages he offers tentative definitions of 'existence', which do not always seem equivalent. In the last section we considered one of his definitions; now we consider another. He writes,  

"existence" is only explicable as "being an ingredient in the most perfect series of things".

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We may, therefore, take 'Ex' to mean 'x is in the best of all possible worlds'.

Given that this is what 'existence' means, it is no longer plausible to assert (3) as a tautology. For there seems to be no logical reason to believe that, if something is possible, it could be in the best of all possible worlds. The efforts of worthy clerics, notwithstanding, one could, it seems to me, describe something so reprehensible that, although possible, it simply could not be a feature of the best of all possible worlds.

Because it appears to offer a solution to Leibniz's difficulties by casting doubt upon (3), let us for a moment accept this definition of 'existence', and see where it leads us. Let us accept, that is say, that 'x exists' means 'x is in the best of all possible worlds'. It would place too great a demand on the reader's credulity, however, to ask him to believe that a world which contains mosquitoes, Adolf Hitler, and Toronto, Ontario is the best of all possible worlds, the best that an omnipotent God could come up with. Now in the past the sorry state of affairs around me has never led me to infer that I might be one of the inferior creatures from whom God, in his wisdom, has denied existence. Yet on Leibniz's principles perhaps this is just the inference I ought to make. For, if 'existence' were just one amongst the many predicates which apply to things and, if these other predicates were to apply to things independently of whether they are in the best of all possible worlds, then all the creatures of the various unrealized, inferior possible worlds would live out their miserable lives according to their own individual concepts, differing from the actual creatures only in that they are not also in the best of all possible worlds.

When one considers that every conceivable abomination would be suffered by someone, albeit not necessarily by someone in the best of all possible worlds,
it is difficult to see in this, as Leibniz professes to, a solution to the problem of evil. Surely, the knowledge that one was not in the best of all possible worlds would come as small consolation to a suffering man.

Leibniz's immediate difficulties in this case stem from the fact that 'existence' simply does not mean what he says it means. In his view, a negative existential claim is tantamount to a denial that something is in the best of all possible worlds. But, despite his principles which suggest otherwise, it is surely absurd to deny that oneself exists, whereas it is not absurd to deny that oneself is in the best of all possible worlds.

This fact suggests that Leibniz needs to modify his definition of 'existence'. But, when one considers why it is absurd to deny that oneself exists, one sees problems intrinsic to Leibniz's approach to quantification theory. Surely, the reason why it is absurd for me to deny my own existence is that I know I am sitting here, writing on this paper before me. If by some miracle I were removed at this very moment from existence, all my activities would cease; I would no longer occupy this chair, nor would I continue to write on this page. Descartes was right; for us to do anything we must exist. It is not a coincidence that death is always accompanied by a cessation of activity. Tales of ghosts notwithstanding, it would be absurd to claim that, although I do not exist, I am nevertheless sitting in this very chair and writing on this very page. Ghost stories do not matter because those who believe in them also believe in the existence of ghosts. Generally speaking, it is absurd to assert both 'a does not exist' and 'a is F', except for some special interpretations of 'F'.

1In the next section, we will return to the absurdity of denying one's own existence, considering the matter in connection with Lewis's indexical analysis of actuality.
Of course, for a special class of predicates, of which 'imaginary' is an instance, it is not absurd to assert both that \( a \) does not exist and that \( a \) is \( F \). The analysis of these special predicates is somewhat problematic, but we'll not attend to it here. For we are concerned with Leibniz's thesis that even for ordinary predicates, such as 'red', predication presupposes mere consistency, not actual existence. As we have seen, Leibniz says, 'if the actual Adam has in the course of time a particular posterity, one cannot deny this same predicate to this same Adam conceived of as [merely] possible'.

I confess that my own intuitions in this regard are with Russell's: if Adam had not existed, then he would not have had any posterity at all, let alone the same posterity, since he would not have done any of the things which produce a posterity. If 'a is F' is not true unless \( a \) exists, then Leibniz's quantification theory is irremediably mistaken. For in that event the extension of 'F' is limited to the actual world after all, and the quantifiers cannot range over the contents of all possible worlds. Indeed, the very notion of a possible world has never been made clear by anyone.

4.7 David Lewis and the Creation of the World

We conclude this chapter by touching upon a point of contemporary interest.

Mates rightly emphasizes the similarities between Leibniz and David Lewis. But I wish to point out one respect in which these philosophers differ. In the last section we emphasized at Leibniz's expense that doubts concerning one's own existence or actuality are never justified. Let us notice


(p. 130), Christian theology does not permit Leibniz to adopt such analysis. For, if we adopt that analysis, we could not reasonably say that God created the actual world, to the exclusion of the others. With equal justification, we could say that God considered every moment and chose to make this one the present because it is the best. So long as Leibniz believes in the literal creation of the world, actuality must apply to this world alone. It might therefore seem that we could improve upon Leibniz’s logic by separating it from his incoherent theology. But this small change would not render his system immune to the objections raised against it in section 4.5.

4.8 Summary Let us for a moment return to the point at which we began our discussion of Leibniz. As we saw in section 3.4, Leibniz attempted to avoid the difficulties concerning subalternation by saying that 'Some A is B' means 'AB is a thing—either possible or actual, depending upon whether the proposition is essential or existential'. But the dichotomy between essential and existential propositions breaks down if, as Leibniz believes, the ontological argument is sound: the conclusion of that argument is an essential existential proposition. Many people faced with this difficulty have tried to meet it by arguing that God is somehow special, and that in his case alone the dichotomy between essence and existence does not hold. In Leibniz’s system, however, the ontological argument can be used to transport anything from the realm of mere possibles into the real world, provided we assume that, if something is possible, it can exist. This assumption, which is embodied in (3) above, gives us an arbitrary technique for moving from 'P(∀x)(...)' to 'P(∀x)(Ex & ...)' and thence to 'E(∀x)(Ex & ...)'.

1Parkinson, p. 81.
causes Leibniz's system to collapse into that of Russell's, in which the predicational use of 'to be' is not after all independent of its existential use. On the other hand, if Leibniz rejects (3), then he must argue that something which is possible in itself could not exist. But this is a manifest absurdity. In Frege's system of quantification theory, on the other hand, (3) is not even expressible, since it contains the illegitimate 'Ex'; therefore, unlike Leibniz, he need not concern himself with its truth-value. This is as it should be, since we were unable to attach a meaning to 'possible existence'.

4.9 Conclusion  Whatever the merits of our criticisms, we are in Leibniz's debt for the work he has done; his system will remain as the image of a mind which had peered deeply into the nature of things. With full justification Leibniz said near the end of his life, 'all our logics now are but a shadow of what I should wish and what I see from afar'.¹ It is very sad that the beauty of his work is marred by the imperfection we have found in it.

¹Loemker, p. 463.
CONCLUSION TO PART II

We began this Part by noticing that, arising out of the fact that in Parmenidean languages we are not permitted to talk about mere possibilia, there will be prima facie problems for such languages in connection with modal distinctions. These problems present themselves most forcibly to Christian philosophers, who must find a place in their theories for creation and contingency. These philosophers, I suggested, developed non-Parmenidean languages, in which they predicational use of 'to be' is independent of its existential use. It would seem that in such languages we can talk about unrealized possibilities. This point of view finds its most elegant expression in Leibniz. Yet we argued that Leibniz must either (A) accept a principle which would convert his language into one with a Parmenidean structure, or else (B) reject this principle and be left with a system in which the sense of 'possible' cannot be explicated. In either case, then, the special features of his system do not serve to elucidate our notion of possibility. We must, therefore, look elsewhere for a solution to the modal paradoxes mentioned at the beginning of Part II.
PART III: MODERN THOUGHT

IN PART III WE WILL FIRST (CHAPTER 5) PRESENT FREGE'S ANALYSIS OF EXISTENCE AND RELATED CONCEPTS, STRESSING IN PARTICULAR THE PRIMA FACIE PROBLEMS WHICH ARISE ON HIS APPROACH. THEN (CHAPTER 6) BY DEVELOPING CERTAIN SUGGESTIONS IN RUSSELL, WE WILL ATTEMPT TO DEAL EFFECTIVELY WITH THESE PROBLEMS, DOING SO IN A MANNER CALCULATED NOT TO DEVIATE SUBSTANTIALLY FROM FREGE'S TREATMENT OF THE CONCEPT OF EXISTENCE. THOUGH FREGE HIMSELF DID NOT AIM AT FIDELITY TO NATURAL LANGUAGE, WE WILL SEE THAT A VIRTUE OF HIS QUANTIFICATION THEORY IS THAT IT WORKS VERY WELL TO EXPLAIN THE USE OF 'EXISTS' IN NATURAL LANGUAGES. BY OFFERING WHAT PURPORTS TO BE A CORRECT SOLUTION TO THE ONTOLOGICAL PROBLEMS RAISED IN PARTS I AND II, PART III CONCLUDES THE THESIS.
5.0 Introduction In *Individuals* (London: 1959), pp. 9-10, Strawson distinguishes between descriptive and revisionary metaphysics. The first is 'the study of the actual structure of our thought about the world', whereas the second seeks to revise that structure. Strawson's preference is with metaphysics of the descriptive variety, a preference perhaps based upon his belief that the central core of human thought does not change. But I can see no reason why descriptive metaphysics should be thought to have an unchanging subject-matter, nor why the revisionary metaphysics of one day should not be the descriptive metaphysics of another. Strawson counts Aristotle as a descriptive metaphysician and Berkeley as a revisionary. But the difference between them may just be that Aristotle was a successful metaphysician and Berkeley was not. However that may be, in the fact that our basic intuitions are often inconsistent we have some reason for practicing revisionary metaphysics. A purely descriptive approach to existence, e.g., would leave us dissatisfied because of our conflicting impulses to believe both that there isn't anything which does not exist, and also that many things (e.g., Pegasus) do not exist. Talk of fictional being notwithstanding, these unanalysed beliefs are inconsistent. I see philosophy as a kind of

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1I do not mean to suggest that Strawson holds (or is committed to holding) that our ordinary concepts and basic intuitions are free of incoherence. Perhaps, his remarks are not intended to apply to anything so sophisticated as our concept of existence. Because talk of 'intuitions' and 'basic concepts' is always elusive, Strawson's intentions are not quite clear to me. Nevertheless, because of the impression which his well-known words might have on the reader, my points in section 5.0 seem worth making in connection with Strawson, whose words might otherwise be thought to confer a kind of primal legitimacy upon our ordinary concepts and beliefs which they simply do not possess.
sorting out of contradictory intuitions, in which we give up something in order to save something else. In this way, we revise the structure of our thought about the world. In this chapter we will begin telling a continuous story which will end in the next chapter with a complete solution to the Parmenidean puzzles.

5.1 Gottlob Frege Though Frege's audience of admirers was very small indeed during his lifetime, it was just large enough to include the man who was to discover, and communicate to him, the refutation of his system. On 16 June 1902 Bertrand Russell wrote to Frege telling him of the Paradox\(^1\) which can be used to generate a contradiction in Frege's system.\(^2\) On 22 June Frege replied, saying that the contradiction had shaken the foundation upon which he had proposed to build arithmetic. In an appendix [October 1902] to the Basic Laws of Arithmetic, vol. II, Frege amended his system in an attempt to block the derivation of the contradiction, and concluded:

\(^1\)Russell's Paradox may be expressed as follows: 'Let \(w\) be the class of all those classes which are not members of themselves. Then, whatever class \(x\) may be, "\(x\) is a \(w\)" is equivalent to "\(x\) is not an \(x\)". Hence, giving to \(x\) the value \(w\), "\(w\) is a \(w\)" is equivalent to "\(w\) is not a \(w\)".' Russell, B., 'Mathematical Logic as based on the Theory of Types' [1908], as reprinted in: Marsh, R., ed., Logic and Knowledge (London: 1956), p. 59.

\(^2\)It must not be supposed that Russell's Paradox afflicted Frege's system alone. On the contrary, as Frege himself observed in Furth, M., tr., The Basic Laws of Arithmetic (Los Angeles: 1967), p. 127, 'Everyone who in his proofs has made use of extensions of concepts, classes, sets, is in the same position'. Today it is perhaps generally thought that this crisis in logical theory issued from the fact that our intuitions about sets are inconsistent. We are certainly disposed, e.g., to accept the principle that there is a class (perhaps empty) to which anything belongs if and only if it possesses the defining characteristic of that class. There is, e.g., a class to which anything belongs if and only if it is a horse, this class being of course the class of horses. Russell's Paradox, however, is a counter-example to this principle. Our intuitions about sets thus stood in need of revision. The various axiomatic set theories, of which Zermelo's in 1908 was the first, may be understood as revisionary in the sense discussed in section 5.0.
'I do not doubt that the way to the solution has been found'.

As the years advanced, however, Frege came to see what Lesniewski was later (1938) to prove—namely, that his amendment did not suffice to eliminate the contradiction from his system. Broken by the untimely deaths of his children and then his wife, embittered by the world's indifference to his work, 'Frege looked old beyond his years' when Carnap was his student in 1910. 'The paradoxes of set theory', he wrote in 1924, 'have destroyed set theory'. Having abandoned the attempt to provide a logical foundation for arithmetic in set theory, his life's work seemed to him to have issued only in failure. He turned in the last years of his life to the social problems of post-War Germany, and began an article on politics; on 26 July 1925 he died without completing it. The world did not observe his death. Yet in his ill-fated attempt to reduce arithmetic to set theory, he created the most powerful instrument of modern logic—quantification theory. For this achievement we honor him, posthumously.

As we have seen, it is implicit in Aristotle's logic that every term be non-empty. Our search through twenty three centuries of philosophy nowhere revealed a satisfactory account of the simple claim that unicorns do


2He was, however, survived by his adopted son Alfred.


4As reported in Bynum, T., ed., Gottlob Frege: Conceptual Notation and Related Articles (Oxford: 1972), p. 53. Frege was acquainted with the independent work of Russell (1908) and Zermelo (1908), which was intended to remove the contradictions from set theory. For unspecified reasons, he must therefore have been dissatisfied with this work.
not exist. In Frege we now have such an account. The sentence, 'Unicorns do not exist', may be taken to mean that in the domain of animals, of which unicorns would be members if there were any, the extension of the predicate '...is a unicorn' is null. Thus, denials and affirmations of existence to kinds of individuals state that a certain predicate has either an empty or non-empty extension in a given domain. Contrary to what E. E. Jones said above (see pp. 60-1), however, one need not assume that a predicate with an empty extension in one domain must have a non-empty extension in some other domain. Thus, unlike Aristotelian logic, Frege's logic is free of existential import with respect to its general terms. But, as we will soon see, the situation is otherwise for singular terms in his system.

5.2 The Langford-Chadwick Debate

In the late 1920's Langford and Chadwick debated the role of existence assumptions in logic. As we follow the course of this debate, into which able philosophers like Quine were drawn, we will see the problems of Parmenides re-appear in the twentieth century, but with this difference: the philosophers of our century are in-

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comparably better equipped than those of ancient Greece to deal with these problems.

The debate began when Langford, commenting on Chadwick's paper 'Logical Constants', put forth certain arguments designed to show that Russell's logic is in various ways deficient; he very reasonably said:¹

No proposition which is certifiable on logical grounds alone can have existential import with respect to individuals.

A proposition \( p \) has existential import, in respect of individuals, if it follows from \( p \) alone that there is at least one individual.

Langford believed that any proposition '...a...', in which 'a' occurs as a singular term, has existential import with respect to the individual a. Thus, the proposition 'a is extended', e.g., entails 'a exists'.² Similarly, 'a is not extended' entails 'a exists'. From the supposition that 'a is extended' and 'a is not extended' share the contingent consequence that a exists, Langford inferred that they cannot be related as contradictories.³ More generally, from any proposition in which 'a' occurs as a singular term we can infer that a exists. It follows that the result of affixing a negation sign to such a proposition cannot be to generate a contradictory of that proposition. Such propositions, therefore, 'do not have proper contradictories'.⁴

³'Ibid.', p. 344.
⁴'Ibid.', p. 344; also see p. 346.
Langford has fixed his eyes upon a problem which we noticed in connection with Aristotle (see p. 87 esp.). In his reply to Langford, Chadwick notices the problem in connection with Keynes, whom he quotes as writing in 1894:¹

A purely denotative name must necessarily be the name of an object which exists or is supposed to exist in the universe to which reference is made. ... Take, for example, such propositions as the following: This hat is an old one. ... It will be well to differentiate singulars from general universals, and to regard them as implying the existence of their subjects in all cases. ... But here it is necessary to add a word with regard to the opposition of singulars. Socrates lived in Greece and Socrates did not live in Greece cannot on the above view be regarded as true contradictories, since they would both be false in case Socrates turned out to be a myth.

Chadwick noticed something else which is important in connection with Langford—viz., though Langford appears to have the system of Principia Mathematica in mind when he says that 'a exists' is deducible from '...a...' and from 'it is not the case that ...a...', Principia does not permit the deduction of 'a exists' from these propositions. In fact, Principia does not permit the deduction of 'a exists' from anything. As Chadwick notices, the authors of Principia Mathematica say:²

It would seem that the word "existence" cannot be significantly applied to subjects immediately given; i.e., not only does our definition [of 'existence'] give no meaning to "Ex", but there is no reason, in philosophy, to suppose that a meaning of existence could be found which would be applicable to immediately given subjects.

Thus, the proposition which Langford claims to follow on Russell's principles

¹Keynes, J., Formal Logic (London: 1894), p. 64.
from '...a...' and from 'it is not the case that ...a...' is not even expres-
sible in the language of *Principia Mathematica*.¹

Chadwick, however, disagrees with Russell, and says that "'exists' sym-
bolises an unanalysable formal property of this"—i.e., unlike Russell,² he
treats 'this exists' as a meaningful assertion which predicates the proper-
ty of existence of a given individual. In fact, in his attempted resolution
of what I will call the Langford Paradox,³ he makes use of the assumption that
'exists' is predicatable of individuals.

If I have understood Chadwick correctly, he would resolve the Langford
Paradox along the lines suggested by Aristotle in *Categorice* 13b14-35 (see
pp. 76-80 above). That is to say, Chadwick, like Aristotle, wishes to dis-

¹But in Lesniewski's system of ontology (which is difficult to inter-
pret) we have the theorem

\[ x \text{ est } A \rightarrow \text{ Ex}(x), \]

which seems to mean that, if \( x \) is \( A \), it exists. Thus, in his system the pos-
session of \( A \) or non-\( A \) would seem to entail the existence of the possessor.
We must, however, be careful in trying to relate what will prove to be the
problems of Frege's quantification theory to Lesniewski's quantification
theory. His system of ontology seems to be a development of the Medieval
views we considered in Part II, so that problems of existential import break
down differently in his system from how they break down in Frege's system.


³In 'The Philosophy of Logical Atomism', as contained in Marsh, R.,
*Logic and Knowledge* (London: 1956), p. 233, Russell says, e.g.: 'If I say
"The things there are in the world exist", that is a perfectly correct state-
ment, because I am there saying something about a certain class of things; I
say it in the same sense in which I say "Men exist". But I must not go on to
say "This is a thing in the world, and therefore this exists". It is there
the fallacy comes in, and it is simply, as you see, a fallacy of transferring
to the individual that satisfies a propositional function a predicate which
only applies to a propositional function'.

⁴The Langford Paradox is this: singular propositions do not have con-
tradictories because '...a...' and 'it is not the case that ...a...' share
the contingent consequence that a exists.
tistinguish the assertion that something possesses a certain negative predicate (say \( \text{non-} \beta \)) from the denial that something possesses the positive correlative (\( \beta \)) to that predicate (\( \text{non-} \beta \)). In our statement of the Langford Paradox we equated \( \text{it is not the case that } v \text{ is } \beta \) with \( v \text{ is non-} \beta \). According to Chadwick, however, such an equation is illegitimate. Of the two propositions only \( \text{it is not the case that } v \text{ is } \beta \) is a contradictory of \( v \text{ is } \beta \).

The solution to the Langford Paradox which Chadwick advocates is recommended by Quine\(^1\) and adopted independently by many authors.\(^2\) But the solution involves its advocates in assumptions which they do not seem prepared always to admit, nor even to explicate. Therefore, I may be forgiven if I belabor what should be an obvious point, since it is one overlooked by Chadwick and all the authors mentioned in footnote 2 of this page.

The situation concerning names, as Chadwick and others envisage it, reminds one of Russell's treatment of descriptions,\(^3\) in which by means of scope distinctions Russell hopes to resolve an ambiguity in 'the present King of France is not bald'. Let us quickly review Russell's discussion of 'the present King of France is not bald'. This review will reveal why what can be done with definite descriptions cannot be done with genuine names, and why therefore Chadwick's approach to the Langford Paradox fails to resolve

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the difficulty.

According to the theory of descriptions, the apparently atomic sentence 'the x which is F is G' is in fact an abbreviation for the conjunction of the following propositions:

1. There is something which is F.
2. There is not more than one thing which is F.
3. There is nothing which is F and not G.

The proposition 'the present king of France is bald', e.g., on this analysis appears as the conjunction of:

1. There is something which is a king of France.
2. There is not more than one thing which is a king of France.
3. There is nothing which is a king of France and not bald.

Given that the proposition 'the present king of France is bald' is equivalent to the conjunction of these three propositions, there are three ways in which the proposition might fail to be true. First, it may be that there is not something which is a king of France. In that event, the whole proposition of which (1') is a conjunct is false. Second, it may be that, although there is a king of France, there is more than one such king. In that event, again, the whole proposition of which (2') is a conjunct is false. Third, it may be that, although there is a unique king of France, that man happens to have enough hair not to be bald. In that event, once again, the whole proposition of which (3') is a conjunct is false.

Now, when someone says (i) that the present king of France is not bald, he certainly intends to deny the proposition (ii) that the present king of France is bald. But we have just seen that there are three ways in which
this latter proposition (ii) may fail to be true. A question arises, therefore, as to what is meant when someone says, 'the king of France is not bald'. Does the speaker mean, e.g., that there is a unique king of France but that he is not bald? This is certainly the sort of thing which would be meant if someone said that the president of the United States is not bald; for it is agreed that there is a unique president of the United States, and so questions arise only as to his qualities. Now, if some naive person believed that there is a king of France but that he is not bald, and meant this by saying that the king of France is not bald, then surely what he has said is false. On the other hand, if someone said that the king of France is not bald, and meant by this that, because there is no king of France, the proposition 'the king of France is bald' is false, then he has said something true. Thus, in ordinary English 'the present king of France is not bald' is ambiguous between propositions which on Russell's analysis sometimes differ in truth-value. That is to say, the proposition 'the present king of France is not bald' may be taken to mean either:

(A) There is one and only one person who is now king of France, and he is not bald.

or

(B) It is false that (there is one and only one person who is now king of France and bald).

If the king of France does not exist, (A) will be false because it asserts that there is such a king. On the other hand, in this situation (B) will be true precisely because it asserts the falsity of 'there is one and only one person who is now king of France and who is also bald'. This existential proposition is made false by the fact there is no king of France. Therefore, its denial (B) will be true.

Russell seems right in holding that 'the king of France is not bald' is
ambiguous between (A) and (B). It is clear, moreover, that the ambiguity arises owing to scope-ambiguities in the sentence 'the present king of France is not bald'. By adopting certain scope conventions, then, we may reasonably expect to resolve this ambiguity. To see how it might be done, I refer the reader to *Principia Mathematica*, Pt. I, section B; be advised, however, that Russell's scope distinctions are often criticized. These are matters into which we need not inquire except to note:\textsuperscript{1}

When [the king of France exists], the scope of [the king of France] does not matter to the truth-value of any proposition in which ['the king of France'] occurs.

What this means for us is that in the case where the king of France exists the propositions (A) and (B) do not differ in truth-value. It is obvious that this is so. Granted that there is a unique king of France, (A) will be true if and only if this king has enough hair not to be bald. Similarly, (B), which says that this king either does not exist or else is not bald, will likewise be true if and only if he has enough hair not to be bald; for we have conceded his existence. Therefore, if we are to generate a difference in truth-value between (A) and (B), it is essential that 'the king of France' apply to nothing. Now with his theory descriptions Russell easily satisfies this condition: expression 'the king of France' is simply eliminated in favour of a predicate which is assigned a null extension, for in Frege's quantification theory the notion of a predicate with a null extension is unproblematic.

The brilliance of Russell's theory of descriptions thus resides in this fact: that it permits us to eliminate 'the x which is F' as a singular term

\textsuperscript{1}*Principia Mathematica*, vol. I, p. 184.
(which in Frege's logic must be assigned a referent) in favor of a predicate (which in Frege's logic need not be assigned a non-empty extension). This point scarcely seems to need mentioning but for the fact that people write such things as the following:  

1

If definite descriptions are substitutable for individual variables, as they are normally supposed to be, then "(1x)Fx = (ix)Fx" is deducible from the law of identity. By Russell's analysis of descriptions, however, such an identity-statement is equivalent to "E(ax)Fx". Thus we seem to be left with the paradox that not only factual truths (like "the President of the U.S. exists") are deducible from a logically true premise (the law of identity), but even factual falsehoods are deducible from a logically true premise: "the king of Switzerland is identical with the king of Switzerland" is a perfectly good substitution-instance of the law of identity, but by Russell's analysis of definite descriptions this is equivalent to asserting the existence of the king of Switzerland!

Need I mention that on Russell's analysis definite descriptions are not substitutable for individual variables, since upon analysis they appear as general expressions?

In order to secure the validity of existential generalization [= EG] and universal instantiation [= UI], Frege must assume that every singular term has a referent, 2 and hence cannot treat such terms as being free of existential import. Here there is a radical dis-analogy between his treatment of singular and general terms. For without the supposition of existen-


2Thus, Langford correctly identifies an existential assumption in Frege's logic when he observes: 'It is clear that primary propositions such as "this is coloured" or "this is beside that", which involve proper names, have existential import, since, for example, "this is coloured" entails "(E)x is coloured". 'On Propositions belonging to Logic', p. 343.
tial import for singular terms we would be able to produce such 'counter
tions as the following to EG and UI:

1) \((\forall x)(x = x)\)  
   \([\text{tautology}]\)

2) Pegasus = Pegasus  
   \([1] \text{ via UI}\]

3) \((\exists x)(x = \text{Pegasus})\)  
   \([2] \text{ via EG}\]

Here we have what appears to be a proper argument which issues in the false
conclusion that there exists something which is identical with Pegasus.\(^1\)

It was perhaps his reflection upon such counter-arguments as the above
which led Moore to say:\(^2\)

\[\text{I entirely deny that } \forall x \exists y \text{ entails } \forall x \exists y\]

Moore made this comment when he was discussing a paper by Ramsey in which
Ramsey had defined \(\forall \mu \exists \nu \) and \(\exists \mu \forall \nu \) for the domain \(\{x_1, x_2, \ldots\}\) as fol-
lows:\(^3\)

\[\forall \mu \exists \nu = \forall \nu_1 \lor \forall \nu_2 \lor \ldots\]

\[\exists \mu \forall \nu = \exists \nu_1 \lor \exists \nu_2 \lor \ldots\]

where in these definitions \(\nu_1, \nu_2, \ldots\) name \(x_1, x_2, \ldots\), respectively. With
the quantifiers thus interpreted, Ramsey defended EG and UI on the grounds
that they are equivalent to the following truth-functionally valid infererences:


In these inferences \( \forall v \in \{ \forall v_1, \forall v_2, \ldots \} \). Moore objected to Ramsey's definitions of the quantifiers just because he thought it conferred validity upon UI. Though his remarks correctly point to the existential presupposition involved in UI (and EG),\(^1\) he incorrectly identifies Ramsey's interpretation of the quantifiers as the source of that presupposition. As Ramsey doubtless knew, his interpretation of the quantifiers justifies UI and EG only for languages which exclude nondesignating singular terms. It is really the exclusion of such terms to which Moore wishes to object.

In rejecting nondesignating singular terms Ramsey was following the example of *Principia Mathematica*. Let us therefore call the languages from which nondesignating singular terms have been excluded Russellian. Out of a Russellian language \( R \) we may generate a non-Russellian language, \( R^* \), simply by adding a non-empty set of singular terms, \( \{ v_1, v_2, \ldots \} \), to which nothing is assigned in the domain of interpretation \( \{ x_1, x_2, \ldots \} \). For Language \( R^* \), we assume that each \( \forall v_1 \) is a term which, like 'Pegasus', would be classified as singular on syntactical grounds, so that it can occupy the positions appropriate to such terms in the well-formed formulas of Language \( R^* \). On these assumptions, given the Wittgensteinian interpretation of the quantifiers to which Moore mistakenly objected, the semantics of Language \( R^* \) do not validate UI and EG. For ex hypothesis \( \forall v_1 \notin \{ \forall v_1, \forall v_2, \ldots \} \). Therefore, we are not licensed to infer \( \forall v_1 \) from \( \forall v_1 \& \forall v_2 \& \ldots \). Similarly, we are not licensed to infer \( \forall v_1 \& v_2 \& \ldots \) from \( \forall v_1 \). In Language \( R^* \), e.g.,

\(^1\)See *Philosophical Papers*, p. 86.
we would not be entitled to infer 'Pegasus is wingless' from the generalization that every horse is wingless. For this generalization is tacitly restricted to real horses, of which Pegasus is not an instance.

Of course, in a Russellian language we also cannot infer 'Pegasus wingless' from the fact that all horses are wingless, but in this case it is because we are not permitted to use 'Pegasus' as a term in singular propositions. Significantly, Frege viewed it as 'an imperfection of language' that some singular terms in natural languages have no references; he writes:¹

A logically perfect language should satisfy the conditions, that every expression grammatically well constructed as a proper name shall in fact designate an object, and that no new sign shall be introduced as a proper name without being secured a reference. The logic books contain warnings against logical mistakes arising from the ambiguity of expressions. I regard as no less pertinent a warning against apparent proper names having no reference.

When Frege says that EG and UI are valid forms of inference, he means that they hold absolutely in a logically perfect language. Thus, when Moore objects to the validity of UI, his objection is in fact misplaced. For the inference is valid in a certain kind of language but not otherwise. Therefore, he should object, not to the validity of the inference, but to the kind of language in which it is unquestionably valid.

We may now relate these remarks to the Langford-Chadwick debate.

It is plain in the first place that \( \neg \exists v \) does not exist will be true if and only if \( v \) has no referent—i.e., if and only if \( \neg (\exists \mu)(\mu = v) \) is false.

Now, Chadwick and the others whom I cited in footnote 2 on p. 193 would re-

solve the Langford Paradox simply by distinguishing

(1) \( \nu \) is non-\( \beta \)

from

(2) it is not the case that \( \nu \) is \( \beta \).

(1) presumably entails that \( \nu \) exists and is non-\( \beta \). For to be non-\( \beta \) is to possess a property and what does not exist possess no properties. (2) presumably entails that \( \nu \) either does not exist or is non-\( \beta \). For, if \( \nu \) does not exist, then it is not the case that it is \( \beta \) (since what does not exist does not possess any properties). On the other hand, if \( \nu \) does exist, then for (2) to be true \( \nu \) must be non-\( \beta \). Thus, the difference between (1) and (2) comes to the following:

(1') \( (\exists \mu)(\mu = \nu) \land \nu \) is non-\( \beta \)

(2') \( \neg (\exists \mu)(\mu = \nu) \lor \nu \) is non-\( \beta \)

Thus, Keynes, e.g., writes:

The true contradictory of a singular proposition will now take the form of a hypothetical; thus, the contradiction of [Socrates lived in Greece] will be, If there ever was such a man as Socrates, he did not live in Greece.

It seems to me that this approach to the Langford Paradox is unsatisfactory for the following reason. To generate opposite truth-values for (1) and (2) above in the case where \( \nu \) does not exist, it is assumed that the non-existence of \( \nu \) is a sufficient condition of the falsity of (1) and the truth of (2). But the nonexistence of \( \nu \) will be a sufficient condition of the falsity of (1) only in a language where the predicational use of 'to be' is not independent of its existential use. In such a language there will be no counter-examples to EG and UI; therefore, Frege's quantification theory

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1Formal Logic, p. 209.
will hold in it. But, as we have seen, that quantification theory holds only in a language in which there are no non-referring singular terms, so that in such a language $\neg(\exists \mu)(\mu = v)$ does not admit of a true interpretation.

It follows that in such a language $(1')$ and $(2')$ cannot differ in truth-value.

The Langford Paradox arises only in a language with a Parmenidean structure, since without this structure neither $\exists v \vDash \beta^3$ nor $\exists v \vDash \neg \exists v \vDash \beta^3$ entails $\exists v \vDash \beta^3$ exists$^*$. But, given that structure, we cannot cite the falsity of $\exists v \vDash \beta^3$ exists$^*$ to explain how $\exists v \vDash \beta^3$ and $\exists v \vDash \beta^3$ is not $\beta^3$ may after all be related as contradictories. Given a language with a Parmenidean structure, Frege's quantification theory will hold in it. For it is really the fact that something cannot be $f$ unless it exists which supports existential generalization and universal instantiation. Frege's quantification theory holds only on the assumption that every singular term has a referent, so that in the languages where the Langford Paradox arises there are no false singular existential claims.

If in Russellian languages there are no false singular existence claims, it might seem that their positive counterparts are therefore analytic. In that event, $\exists v \vDash \beta^3$ and $\exists v \vDash \beta^3$ would share the necessary consequent that $(\exists \mu)(\mu = v)$, and the Langford Paradox would thus disappear. But this approach is not attractive to me. In the last chapter we agreed with Russell against Leibniz that English has a Parmenidean structure. Therefore, if $(\exists \mu)(\mu = v)$ were analytic in the formal languages verifying Frege’s quantification theory, it would seem that English attributions of existence to individuals must be similarly analytic. But the English sentence 'Pegasus exists' is so far from being analytic that it is false.

5.3 Quine It is, of course, to be stressed that neither Russell
nor Frege will permit the deduction of \( \exists y \text{ exists} \) from \( Bv \) or from \( \neg Bv \). Employing the deductive apparatus of \textit{Principia Mathematica}, Langford attempts to show that the apparently contradictory propositions \( Bv \) and \( \neg Bv \) cannot really be related as contradictories; he constructs the following parallel deductions:

\[
\begin{align*}
\text{ARGUMENT A} & \\
1 & Bv \quad \text{[Premise]} \\
2 & Bv \lor \neg Bv \quad [1: \text{Addition}] \\
3 & \exists \mu (B\mu \lor \neg B\mu) \quad [2: \text{EG}]
\end{align*}
\]

\[
\begin{align*}
\text{ARGUMENT B} & \\
1 & \neg Bv \quad \text{[Premise]} \\
2 & \neg Bv \lor Bv \quad [1: \text{Addition}] \\
3 & \exists \mu (\neg B\mu \lor B\mu) \quad [2: \text{EG}]
\end{align*}
\]

As a matter of pure deduction, then, (says Langford) these propositions \( Bv \) and \( \neg Bv \) share the contingent consequence that there exists something which is \( B \) or \( \neg B \).

Quine is rightly suspicious of Langford's reasoning in this regard, and replies as follows: Arguments A and B depend upon EG, which works only in nonempty domains. Since \( \exists \mu (B\mu \lor \neg B\mu) \) is true for every interpretation in every nonempty domain, it is valid. On the other hand, continues Quine, in the empty domain, where EG fails, \( \exists \mu (B\mu \lor \neg B\mu) \) is false.

Quine's answer to Langford is certainly right, and points to an eliminable existential presupposition in \textit{Principia}. *24.52 states that there exists something which is self-identical. Holding that it is a contingent fact something rather than nothing exists, Russell came to see it as 'a defect of logical purity' that \textit{Principia} contains *24.52 as a theorem. Incidentally,
Russell did not always view it as a 'defect of logical purity' that Principia contains the theorem *24.52. In his unpublished 1906 paper 'The Paradox of the Liar', p. 41, Russell observes that his principles commit him to the thesis that \((\exists x)(x = x)\), and then remarks:

This Pp [theorem] assures us that there is something in the world, which, so far as it goes, is comforting. But more would be would cheerful.

He goes on to observe that the proposition

\((\forall x)Fx \rightarrow (\exists x)Fx' is also 'worthy of a place among Pp's'.

Though Russell came to reject his 1906 opinion, he never quite saw how to eliminate the existential assumption upon which his own *24.52 and Langford's \(\exists\mu(\forall \mu \psi \vee \neg \psi)\) depends. Given a suitable formal language, however, we may extend its conventions governing the interpretation of wffs without free individual-variables to cover the empty domain, and say that a wff is universally valid only if it holds in every domain (including the empty one).

The following conventions are reasonable:

1. If a wff \(A\) contains no free occurrences of \(\mu\), then \((\forall \mu)A\) and \((\exists \mu)A\) have the same truth-values under an interpretation in the empty domain as \(A\) has.

2. If \(A\) contains free occurrences of \(\mu\), then the truth-value of \((\forall \mu)A\) under an interpretation in the empty domain is truth, and that of \((\exists \mu)A\), falsehood.

By extending the notion of validity to cover the empty domain and by interpreting formulas without free individual-variables in the empty domain, we

\[\text{1} \text{I have in mind here a formal language such as we find in Massey, C., Understanding Logic (New York: 1970), from which I have borrowed my conventions for the empty domain.}\]

\[\text{2} \text{Our convention that propositions of the form } (\forall \mu)\psi \text{ are true in the empty domain was anticipated by Russell in his unpublished 1906 paper 'The Paradox of the Liar' (p. 41): 'If there were no entities, } (\forall x)Fx \text{ and } (\forall x)\neg Fx \text{ would both be always true. Thus if } (\forall x)Fx \text{ and } (\forall x)\neg Fx \text{ are incompatible, that seems to imply the existence of at least one entity.'}\]
have eliminated one sort of ontological assumption from *Principia*—viz., the assumption of a nonempty domain of interpretation for closed formulas. No wff asserting the existence of anything is universally valid.¹

But an ontological assumption of another sort remains—viz., the assumption that each singular term has a referent. As we saw, this assumption is necessary to the validity of UI and EG. Commenting on *24.52, Russell writes:²

> The assumption that there is something is involved in the use of the real [free] variable, which would otherwise be meaningless.

Russell is committed to the existence of individuals exactly to the extent that he uses singular terms. It was doubtless this fact which led Quine to propose that we eliminate singular terms altogether. But perhaps it would be preferable to analyze singular terms in a way which did not make their elimination seem so desirable. Concerning proper names, which are of course paradigms of singular terms, Russell says:³

> Whenever the grammatical subject of a proposition can be supposed not to exist without rendering the proposition meaningless, it is plain that the grammatical subject is not a proper name.

If an expression must satisfy this condition in order to be a proper name, then Quine doesn't need to eliminate proper names because there aren't any.⁴

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¹Incidentally, Ramsey would not accept our conventions for '(∃x)Fx' in the empty domain. In the *Foundations of Mathematics* (London: 1965), he says (p. 60) that, if nothing exists, '(∃x)(x = x)' is 'absolute nonsense'. In his view, given a domain with n individuals, '(∃x)Fx' expands into a disjunction with n disjuncts. In the empty domain, therefore, '(∃x)Fx' is a disjunction with zero disjuncts; analogous remarks apply to '(∀x)Fx'.


³*Principia*, vol. I, p. 66.

⁴The view that failure of reference causes the proposition in which the failure occurs to be meaningless calls Parmenides to mind.
Interpreting a wff—i.e., giving it a meaning—involves for Russell assigning referents to its free individual-variables. He expresses this fact by saying that propositions with non-referring singular terms are meaningless. This view is adopted and defended by Wilson, who argues that the propositions containing singular terms are only contingently meaningful: they have meanings only if their singular terms happen to have referents.¹ But this is surely a conclusion most people would wish to avoid. We know that the meaningfulness of 'Homer wrote the Iliad' does not depend upon a prior determination that Homer exists. This fact naturally invites the inference: therefore 'Homer' is not in Russell's and Wilson's sense a singular term. But we may then ask them: What expression is? Russell's sometimes answered that 'this' and 'that' are proper names in his sense.² But it is clear that these expressions do not function in English in a way which verifies Russell's claim. In fact, he himself came to see this, and said that natural languages do not contain any true proper names.³ Thus, there appears to be a widening gap between English and the language of Principia. Our aim is to close that gap and avoid the Langford Paradox; and our work will be finished when this is done.

By permitting ourselves to use only those singular terms which have referents, we generate the Langford Paradox. Therefore, to avoid the Paradox we may either (1) give up the use of singular terms altogether, or (2) start using some singular terms to which no referents are assigned. As we


saw in the last section, however, (2) creates problems for quantification theory. Let us, therefore, explore (1).

In the Problems of Philosophy (Oxford: 1969), p. 103, Russell writes:

No fact concerning anything capable of being experienced can be known independently of experience. We know a priori that two things and two other things together make four things, but we do not know a priori that if Brown and Jones are two, and Robinson and Smith are two, then Brown and Jones and Robinson and Smith are four. The reason is that this proposition cannot be understood at all unless we know that there are such people as Brown and Jones and Robinson and Smith, and this we can only know by experience. Hence, although our general proposition is a priori, all its applications to actual particulars involve experience and therefore contain an empirical element.

Thus, it would seem that Russell, like Aristotle (see section 2.2), wishes to exclude singular propositions from genuine tautologies. In formal terms, this means that no theorem of Principia may contain free individual-variables.\(^1\)

A given wff \(\forall v_1 \ldots v_n\) is valid if and only if its universal closure, \(\forall (v_1 \ldots v_n) \forall v_1 \ldots v_n\), is valid. Given our conventions governing the interpretation of closed formulas in the empty domain, the universal closure of a valid formula is universally valid—i.e., true for every interpretation in every domain, including the empty domain. Therefore, to generate a universally valid system out of a valid one, we need only to replace those theorems and axioms containing free individual variables by their universal closures, and to amend the rules of inference accordingly.\(^2\)

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\(^1\)See the Introduction to the Second Edition (1927) of Principia, vol. I, pp. xiii and xviii, where Russell says: 'The distinction between real [free] and apparent [bound] variables, which occurs in Frege and in Principia Mathematica, is unnecessary. Whatever appears as a real variable in Principia Mathematica is to be taken as an apparent variable whose scope is the whole of the asserted proposition in which it occurs.'

Because the theorems of universally valid systems hold in the empty do-
main, such systems are entirely free of existential consequences. In place
of \( \forall v \rightarrow (\exists u)\beta v \) and \( (\forall u)\beta u \rightarrow \beta v \), we have \( (\forall v)[\beta v \rightarrow (\exists u)\beta u] \) and \\
\( (\forall v)[(\forall u)\beta u \rightarrow \beta v] \), respectively. Having thus amended our principles, we
cannot deduce the paradoxical proposition noticed on p. 198 that \( (\exists x)(x = \text{Pegasus}) \); yet we continue to maintain that \( (\forall x)(x = x) \). Nor do Langford's
arguments go through in a universally valid system which excludes proposi-
tions of the form \( \beta v \).

To assess our revisions in *Principia*, let us introduce the notion of
the **expressive power** of a formal language. A given formal language has
adequate expressive power, let us say, only if every well-formed sentence
of English is equivalent to some well-formed sentence of that formal language,
once its variables have been interpreted. Does the revised language of
*Principia* have adequate expressive power? It must be observed that English
abounds in sentences containing singular terms and in propositions of the
excluded form \( (\beta v) \). Therefore, if universally valid systems of logic are
to be of any use to us in connection with the Langford Paradox, we must be
able to find sentences in the revised language of *Principia* which contain
no singular terms, but which are equivalent to (or an adequate expression
of) sentences in English which do contain singular terms. If every English
sentence containing singular terms admits of an adequate expression in the
revised language of *Principia* in terms of sentences not containing singular
terms, then we can eliminate singular terms from our fundamental vocabulary.
This would mean the end of all our difficulties insofar as they stem from
the peculiarities of singular terms. But it is important to remember that
in English we do reason deductively from propositions in which names occur.
Therefore, it will be a point of some interest to see how these inferences are to be represented in a language which does not permit us to deduce anything from singular propositions. Quine, of course, argues that singular terms are eliminable from every context. In the next chapter I will argue that he is wrong, and therefore do not look for a solution to the Langford Paradox through the exclusion of singular terms from our language.

5.4 Strawson

Frege writes:¹

That the name "Kepler" designates something is just as much a presupposition for the assertion Kepler died in misery as for the contrary assertion.

The reason for this is, of course, that Frege simply cannot interpret singular propositions whose terms lack referents. Therefore, no proposition of the form $\beta v$ will have a truth-value unless $(\exists u)(u = v)$. These facts are at the basis of the Langford Paradox. Yet Langford seems wrong to infer that $\beta v$ implies $(\exists u)(u = v)$. For in general, if we assert that $A$ implies $B$, we must be prepared to assert that either contradictory of $A$ is true or else $B$ is true. Having said that $\beta v$ has no contradictory, then we can hard-proceed to say (in any ordinary sense) that $\beta v$ implies $(\exists u)(u = v)$. According Everett Nelson, $(\exists u)(u = v)$ is a presupposition of $\beta v$ rather than an implication. Let us now examine the distinction between presuppositions and implications to see whether it might lead to a solution of the Langford Paradox.

Nelson writes:²

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¹ 'On Sense and Reference', as contained in Geach and Black, p. 69.

(1) We are faced then with an apparent contradiction: Surely Fa and -Fa are contradictories; but since each entails \((\exists x).Fx \lor -Fx\), both could be false; hence they are not contradictories. Mindful of the Scholastic precept to draw a distinction when threatened with a contradiction, I shall begin by distinguishing between (1) the constituents of a proposition, and (2) what is asserted about them. Thus, F and a are constituents of Fa; and what is asserted is that F characterizes a. Now relative to the proposition of which F and a are constituents, there is an important difference in the statuses of the terms of this distinction; namely, the existence of the constituents of Fa is necessary to the very being of the proposition Fa; whereas the characterisation of a by F is not necessary to the being of the proposition but only to its truth. In other words, unless there were the individual a, there could not be a proposition having a as a constituent; hence, a necessary condition of the existence of Fa is the existence of the individual a. In like manner, the existence of F is another necessary condition of the existence of Fa. We may express these facts by saying that a proposition Fa is existentially dependent upon the being of its constituents, but not upon a having F.

(2) We have distinguished between (1) the necessary conditions of the existence of a proposition, and (2) the necessary conditions of its truth (exclusive of its existence). Now the distinction I suggest we use in solving our problem is between (1) propositions asserting only necessary conditions of the existence of a proposition, and (2) propositions asserting necessary conditions of the truth of the proposition exclusive of propositions asserting its existence-conditions. Propositions of the former type—i.e., those asserting existence-conditions only—I shall call the presuppositions of the given proposition; and the propositions of the latter type—i.e., those asserting truth-conditions exclusively—I shall call the assertions or truth-conditions of the given proposition.

Plato, as we saw in section 1.5, accounted for the difference between true and false assertion by treating propositions as complexes, all of whose elements have being. The sentence 'Chaeredemus is the father of Socrates', e.g., is said to expresses a certain proposition whose constituents are \(\langle Chaeredemus, Socrates, fatherhood \rangle\). On Plato's analysis, this sentence is true if these constituents are related in the manner asserted by the sentence--
i.e., if Chaeredemus is the father of Socrates. This sentence is false, on the other hand, if the constituents of the proposition it expresses are not related in the manner it asserts—i.e., if Chaeredemus is not the father of Socrates. Having defined truth and falsity in this manner, it is evident that the existence of the elements in the set \( \{ \text{Chaeredemus, Socrates, fatherhood} \} \) is a necessary condition to the truth or falsity of the sentence 'Chaeredemus is the father of Socrates'. If any of these elements were missing, then the sentence, though syntactically correct, would not express a proposition and therefore would not have a truth-value.\(^1\) Let us say that the sentence \( P_1 \) is a presupposition of the sentence \( S_1 \) if \( P_1 \) asserts the existence of some constituent(s) of the proposition expressed by \( S_1 \). Thus, the sentence 'Chaeredemus exists', e.g., is a presupposition of the sentence 'Chaeredemus is the father of Socrates'. Now, on Nelson's account \( S_1 \) has a truth-value only if all its presuppositions are true.\(^2\)

Russellian languages seem to embody at least some of Nelson's views and assumptions. For it is only to interpreted wffs that we attribute a

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\(^1\)I might mention here that Nelson, unlike Langford, does not limit his discussion to singular propositions. He believes that, if 'Fa' and '-Fa' are not not contradictories because they assume that a exists, then '(\(\forall x\)Fx)' and '-(\(\forall x\)Fx)' also are not contradictories because they assume that F exists. More generally, 'P' and '-P' would seem to assume that P exists, since a proposition without constituents is nothing at all; and so on Langford's style of reasoning we are brought back to the Sophist position (see p. 25 above) that contradiction is impossible.

\(^2\)In Introduction to Logical Theory (London: 1960), p. 175, Strawson writes: ""S presupposes S*" is defined as follows: "The truth of S* is a necessary condition of the truth or falsity of S."
truth-value, and interpreting the wff $\exists \beta_1 \ldots \beta_n$ involves assigning individuals to the singular terms $\beta_1, \ldots, \beta_n$. This seems a reasonable procedure. For anyone who did not know who was being referred to by the term 'Chaeredemus', e.g., certainly would not know whether that individual whom he does not know is the father of Socrates—i.e., he would not know whether 'Chaeredemus is the father of Socrates' is true. It may well seem, therefore, that we could not know the truth-value of a sentence whose singular terms lack referents. Are we then to conclude that such sentences do not have truth-values? It would perhaps seem so, for it is the referent (and not the mere name) which fixes the truth-value of the propositions in which the name occurs. But here we must be careful, for we are making a claim about the actual workings of a language to which we are trying to fit our theory. The theory itself may suggest that our linguistic practices are different from what they in fact are: Do we really want to say that 'Pegasus is a fiction', e.g., has a truth-value only if 'Pegasus' has a referent?

But 'is a fiction' is, of course, a relatively unusual predicate. Let us then return to an ordinary predicate, such as 'is a horse'. Above we considered the case where we are in ignorance of a term's referent. Let us now consider the case where we know that a certain term has no reference. Would we say in this case that 'Pegasus is a horse', e.g., is false just because Pegasus does not exist, or would we say that it is neither true nor false because of this? As everyone knows, Russell answered this question by saying that in this case 'Pegasus is a horse' is false, whereas in 'On Referring' Strawson answered it by saying that the sentence is neither true nor false. In 'On Referring' Strawson claimed to have the support of ordinary usage for his. In reply to Strawson, however, Russell remarks:
For my part, I find it more convenient to define the word "false" so that every significant sentence is either true or false. This is a purely verbal question; and although I have no wish to claim the support of common usage, I do not think that [Mr Strawson] can claim it either. Suppose that in some country there was a law that no person could hold public office if he considered it false that the Ruler of the Universe is wise. I think an avowed atheist who took advantage of Mr Strawson's doctrine to say that he did not hold this proposition false, would be regarded as a somewhat shifty character.

Strawson later moved toward Russell's view, and wrote: 2

Suppose I make a remark of the form "The S is P", knowing that there is no S, with the deliberate intention of deceiving my hearer. Suppose, for example, that I am trying to sell something and say to a prospective purchaser, "The lodger next door has offered me twice that sum", when there is no lodger next door and I know this. It would seem perfectly correct for the prospective purchaser to reply, "That's false", and to give as his reason the fact that there was no lodger next door. And it would indeed be a lame defense for me to say, "Well, it's not actually false, because, you see, since there's no such person, the question of truth or falsity doesn't arise.

It seems to me that English lacks clear conventions governing the assignment of truth-values to sentences containing non-referring singular terms. I grant that, when we talk, there is a presumption (not to say presupposition) that there is something which we are talking about. This presumption, though false in such cases as 'Pegasus is a horse', runs so deep that our language lacks rules for interpreting the sentences which contradict it. In this situation it is permissible, other things being equal, to extend the conventions

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2 Strawson, P., 'A Reply to Mr. Sellars', as reprinted in Klemke, E., ed., Essays on Bertrand Russell (Chicago: 1970), p. 198. (Incidentally, in a footnote Strawson says, 'I am indebted to Mr. Stuart Hampshire for pointing this case out to me'.)
of English either in the direction Strawson prefers or in the direction Russell prefers.

In general, when we are revising or extending the conventions of a language, it is best to proceed as conservatively as possible. Now, if we allow that some sentences are neither true nor false, then we must of course give up a traditional law—viz., the law of bivalence that every sentence is either true or false. Russell's revisions, however, would preserve this law. Moreover, it is natural to hold that \( \text{if it is true that } A \) has the same sense as the sentence \( A \). Yet, as Dummett observes,\(^1\) if \( A \) is neither true nor false, this equivalence must also be given up. For, if \( A \) is neither true nor false, then the sentence \( \text{it is true that } A \) is false. Therefore, \( A \) will not have the same sense as \( \text{it is true that } A \), since the latter sentence is false while the former is not.\(^2\) Russell's revisions, of course, preserve the equivalence between \( A \) and \( \text{it is true that } A \). Other things being equal then, Russell's conventions seem preferable to Strawson's.

However, if Strawson's revisions (and not Russell's) afforded us a solution to the Langford Paradox that propositions containing singular terms do not have contradictories, then we might well be prepared to give up both bivalence and the supposed equivalence between \( A \) and \( \text{it is true that } A \). Let us therefore return to Nelson, and consider the matter.

According to Nelson, once we have distinguished presuppositions from implications, we are at liberty to treat \( \text{By} \) and \( \text{\neg By} \) as genuine contradictories.


For they do not *imply* one and the same contingent proposition; they only *presuppose* it. My inclination, however, is to hold that contradictory propositions can share neither contingent consequences nor contingent presuppositions. By the law of the excluded middle (which is different from the law of bivalence\(^2\)), the alternation of a proposition with its contradictory is logically true. Therefore, if \( \Phi \) and \( \lnot \Phi \) are genuine contradictories, \( \Phi \lor \lnot \Phi \) is logically true. Now, if a proposition is logically true, it cannot fail to be true. But, if \( \Phi \lor \lnot \Phi \) presuppose that \( (\exists \mu)(\mu = \nu) \), then if this presupposition is false \( \Phi \lor \lnot \Phi \) is neither true nor false. Therefore, assuming that \( \nu \) can fail to exist, \( \Phi \) and \( \lnot \Phi \) are not genuine contradictories. In fact, it would seem that they are related as contraries, since they can be jointly untrue but not jointly true. Nelson does not explain why presuppositions should so differ from implications as to prevent the Langford Paradox from re-appearing in connection with presuppositions.

It may be objected, however, that I have imposed too much of classical logic upon Nelson. To be fair then, let suppose that some clever logician\(^3\) has restructured logic so that (the definitions of 'valid', 'contingent', etc. having been suitably altered) contradictory sentences can share contingent presuppositions. Let us now see what Nelson and Strawson are left with.

The sentence

\[
(1) \ \nu \text{ is } \beta
\]

1 See 'Contradiction and the Presupposition of Existence', pp. 325-6.

2 The law of the excluded middle states that propositions of the form \( \Phi \lor \lnot \Phi \) are logically true; the law of bivalence states that every proposition is either true or false.

presupposes the sentence

\[(2) \ (\exists \mu) (\mu = v)\]

For \(v\) names a constituent of the proposition expressed by (1). But that constituent of (1) seems to be a constituent of (2) also. Therefore, it would seem that (2) presupposes itself and, hence, if untrue, then neither true nor false. It would seem then that sentences expressing singular existence claims no more admit of false interpretation in the Nelson-Strawson account than in the Frege-Russell account. Of course, it is open to Nelson and Strawson to argue that \(v\) is not a constituent of the proposition expressed by (2), so that \(v\)’s existence is not a presupposition of (2). They would not be wrong to do so. In fact, in the next chapter I will argue that in the proposition \(\forall v \text{ exists} \ v\) is not used to refer to something. In Nelson’s terms this seems to mean that individuals are not constituents of ‘singular’ existential propositions, and so would not presuppose themselves. But we will see that our analysis of \(\forall v \text{ exists}\) is part of a larger analysis of language which (a) eliminates the need for the presupposition/implication distinction by conferring a truth-value upon all declarative sentences, and (b) solves the Langford Paradox.

5.5 The Formal Adequacy of Frege’s Logic: A Prima Facie Problem

In this section we will investigate the possibility that the Langford Paradox arises owing to the formal inadequacy of Frege’s logic. As we said earlier (p. 69), a logical system is formally adequate only if

\[\text{1For Frege and Russell the prima facie problem over singular existence claims arises in this way: they commit themselves to logical laws (EG and UI) which are valid only in languages excluding non-referring singular terms. In such languages (2) above will not admit of false interpretation, so that it will be either true or meaningless. But we want it to be true or false.}\]
any matter of extralinguistic fact which must be known before an inference can be made shall be stated as a premise of that inference.

By this standard we judged Aristotle's logic formally inadequate because it licensed such inferences as the following:

(1) All S is P.
(2) Therefore, some S is P. [subalternation]

Now in Frege's logic from

(1) a is F

we may infer

(2) (∃x)(x is F).

But from

(1*) Pegasus = Pegasus

we cannot infer

(2*) (∃x)(x = Pegasus),

since the latter proposition is plainly false.

Frege views it (by implication) as an imperfection of language that there are counter-examples to his logical principles. But is this the correct inference to draw? What is wrong with a language containing singular terms which, like 'Pegasus', designate nothing? Suppose that Aristotle, faced with the problems which empty general terms present to his logical system, had simply said: 'Well, in a logically perfect language every general expression has a nonempty extension'. But to say this is to say what is not true; for, as Frege's quantification theory reveals, there need be absolutely nothing imperfect about a language with empty general expressions. This fact invites the inference that there need be nothing imperfect about a language with empty singular terms.
Indeed, to expose certain fallacies it often appears necessary to re-sort to languages containing non-referring singular terms. For example, Descartes appears at times to argue:¹

If I am right in thinking that I exist, then of course I exist. If I err in thinking that I exist or if I as much as doubt whether I exist, then I must likewise exist, for one one can err or doubt without existing. In any case I must therefore exist: **ergo sum.**

Concerning this argument Hintikka comments:²

This neat argument is a **petitio principii**, however, as you may perhaps see by comparing it with the following similar argument: Homer was either a Greek or a barbarian. If he was a Greek, he must have existed; for how could one be a Greek without existing? But if he was a barbarian, he likewise must have existed. Hence he must have existed in any case.

This latter argument is obviously fallacious; the celebrated Homeric question cannot be solved on paper. By the same token, the former argument is also fallacious.

We see that what makes the latter argument fallacious is the fact that 'Homer' has no reference. But how are we to represent this fallacy in a language without non-referring singular terms? Just as an Aristotelian language faces a **prima facie** problem over such propositions as 'the gods do not exist', so a Fregean language faces a **prima facie** problem over such propositions as 'Zeus does not exist'. It would seem that Frege can explain the sense of 'Zeus does not exist' only by doing violence to its grammar, so that it somehow gets distorted into a general proposition. Then, because empty general terms are not excluded from Fregean languages, it can be given a false inter-


²Ibid., p. 115.
pretation. But, if our language included empty singular terms (as well as empty general ones), then it could be given a false interpretation as a singular sentence, thereby eliminating the need to resort to linguistic paraphrase. It is surely a 'matter of extralinguistic fact' whether an expression has a referent. Therefore, rather than artificially exclude expressions lacking referents from the class of singular terms, we should perhaps make the existential presuppositions to singular inferences explicit. We should, e.g., amend EC to the following formally adequate inference:

(1) \( a \) is \( F \).
(1') \( a \) exists.

(2) Therefore, \( \exists x (x \text{ is } F) \).

Having added 'a exists' as a premise in EG and UI, we have removed the conceptual basis of the Langford Paradox from our language. For, if to prevent counter-example to EC in a language which contains non-referring singular terms it is necessary to add 'a exists' as a premise to that inference, then in such a language 'a is \( F \)' can be true while \( \exists x (x \text{ is } F) \)' is false. In such a language, therefore, the predicational use of 'to be' is independent of its existential use. It follows that in such a language neither 'a is \( F \)' nor 'a is not \( F \)' would entail 'a exists'. Therefore, the Langford Paradox would not arise.

Before endorsing this way out of the Langford Paradox, however, we must attend carefully to the pragmatics of English. Earlier (p. 212) I warned against distorting the facts of reference in English by forcing them to fit our theory. Now I must warn against an excessive naivete which would not have us look beyond the 'surface grammar' of our language. It would be foolish to insist that 'oxen' cannot be plural because it does not end in 's'. It may also prove to be foolish to insist 'Pegasus exists' cannot be a gen-
eral proposition because it contains what appears to be a name. We will return to this point in the next chapter. But for now we approach the issue with an open mind, and will look to see how the sense of 'a exists' qua singular proposition can be explicated. That there are prima facie problems in this regard we know from our last chapter, in which Leibniz's philosophy was seen to fail just because it could not explicate the sense of 'a exists'.

When we treat the predicational use of 'to be' as independent of its existential use, then in saying $\exists \alpha$ is $\exists \beta$ we do not imply that $\alpha$ exists. As we saw in the last chapter, in non-Parmenidean languages the additional information that $\alpha$ exists must come in through the use of 'existent' as a predicate of $\alpha$. Once 'existent' is been introduced in our language as a predicate of individuals we can no longer avoid the ontological argument in the way Frege and Russell would have us avoid it. But others have hoped to avoid this argument without committing us to the thesis that $\exists \alpha$ exists is meaningless. After defining 'exists' as

$$\text{(01) } \text{Ex} =_{df} (\exists F)(Fx \& -Fx),$$

Henry Leonard remarks: 1

According to the definition, only contingent properties imply existence. Hence, the ontological argument from essence—that is, from necessary properties—to existence is without weight, and it does not require Kant's claim that existence is not a predicate in order to invalidate it. In fact, Kant's claim is here specifically rejected: I am in truth treating existence as a predicate.

In Leonard, as in Leibniz, we have a logical system which purports to be free of existence assumptions. Moreover, it is supposedly one which, unlike Leibniz's, exposes the fallacy of the ontological argument. All this is to the

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good, of course; but I am afraid that it doesn’t take much ingenuity to see that Leonard’s definition of ‘exists’ is unsatisfactory. From the predicate ‘F’ we can always generate the predicate ‘non-F’, which will apply to the things which ‘F’ does not apply to. Therefore, presuming that Pegasus does not exist, amongst his necessary predicates will be ‘nonexistence’. It follows that Pegasus cannot exist.

After objecting to the Leonardian consequence that mathematical objects (which are said to have only necessary properties) cannot exist, Rescher put forth an alternative definition of ‘existence’, which incidentally is immune to our objection against Leonard’s definition. It is as follows:¹

\[ \text{Ex} = \text{df} (\exists p)[p x \land (\exists y) \sim p y], \]

i.e., x exists if it possesses a property which something else lacks. This definition of ‘exists’ may be used to refute (after a fashion) not only solipsism but all other forms of monism as well. If only philosophy were so easy!

We find yet another definition of ‘exists’ in Cocchiarella, as follows:²

\[ \text{E}(\alpha) = \text{df} V^\theta \pi(\alpha). \]

According to the author this impressive array of symbols means that x exists if it possesses an attribute which entails existence. Unfortunately, he doesn’t tell us which attributes do that.³

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¹See Rescher, N., ‘On the Logic of Existence and Denotation’, Philosophical Review, vol. 68 (1959), p. 166. (Incidentally, Rescher’s remarks on existence exhibit the same sort of incoherence which we found in Plato.)


³See ibid., p. 47, where Cocchiarella says: ‘Which attributes ... whose possession constitutes the ontological ground for the distinction between the existent and the nonexistent, I do not intend to settle here’.
Let us proceed straightway to what is certainly the most popular (and in some ways most reasonable) definition of 'exists'. Commenting on Russell's theory of descriptions, Geach notices that Russell says we can't define 'Ex'. But (says Geach) it is 'very easy' to do so; he suggests the following definition:

$$\text{Ex} =_{df}(\exists y)(y = x),$$

i.e., $x$ exists if it is identical with something which exists. Well, if Leibniz is right, this is at least a definition we won't be able to contradict. Let us consider its merits.

It is to be observed in the first place that we do not want singular existence statements to come out tautologous. Therefore, we must think of this definition as occurring in a language which includes non-referring singular terms. In such a language, of course, EG and UI will fail. But this is no matter, since those who offer this definition generally wish to amend these inferences as follows:

$$\text{if } \forall x (Fa \supset \left[ EG \right]) \text{ and } (\exists x)(x = a), \text{ then } (\exists x)Fx \supset Fa$$

In an attempt to make these inferences formally adequate $'(\exists x)(x = a)'$ is added as a premise to EG and UI.

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1See 'Russell's Theory of Descriptions', p. 88.


3See, e.g., Hintikka, J., 'Existential Presuppositions'.

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Commenting upon a system of Lambert’s in which EG and UI are thus amended, Church writes:\(^1\)

For the details of the author’s axiomatization, the reader may be referred to the original paper. But the reviewer would point out that the system which is proposed has the following as a possible interpretation. There is a non-empty class \(U\), and the individual and functional (or predicate) variables have their usual ranges based on \(U\) as domain of individuals. But the quantifiers have an unusual meaning which refers to a non-empty subclass \(C\) of \(U\). Namely, to state it briefly, and to use the particular variable \(x\) for illustration \((\forall x)\) is to be read as meaning "for every \(x\) in \(C\)”, and \((\exists x)\) as meaning "for some \(x\) in \(C\)".

The existence of this interpretation shows that the author’s formulation is tenable; but it shows at the same time that it does not go far enough to characterize in any distinctive way a logic that allows true assertions having denotationless names as their subjects. In fact we may choose an arbitrary non-empty class \(C\) of individuals and read \(Ey\) as meaning \(y \in C\).

With Church’s remarks I agree completely. The defenders of these deviate logics wish to embed a Fregean quantifier in a language with a non-Parmenidean structure. But this move is not sufficiently radical to capture the sense of true discourse about the nonexistent. On the other hand, when we approach quantification substitutionally to give the free logicians a non-Fregean quantifier, their systems convert into Leibniz’s system, which we have already criticized.

Approaching quantification substitutionally, we say that 'some a is F' just in case some substitution instance of 'Fx' is true. But now we must ask: what are the truth conditions for 'Fa' when 'a' does not denote? Is 'Santa Claus lives at the North Pole' analytic? If not, what fact confirms it? Is it enough that people say he lives at the North Pole? I should think

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not. If we could make things true just by saying them, lying would be very much more difficult than it is. On the other hand, if we say that 'Santa claus lives at the North Pole' is analytic, what are we to say of 'Santa claus lives at the place which Peary visited in 1909'? Is this also analytic? I should think not, since it is not necessary for Peary to have gone to the North Pole in 1909; he might have failed to do this. Where Peary is concerned, the facts depend upon what he did or failed to do. But what did Santa Claus ever do or fail to do?

Of course, these remarks against the free logicians may beg the question; and for all I know some system of free logic may work to resolve the philosophical puzzles concerning existence. But the matter must be considered in a broader context than the free logicians consider it. I will not consider free logic at length here, but in the next chapter I will argue for the truth of an analysis of 'exists' which would rob the free logicians of their predicate 'Ex'. It will emerge from that analysis that 'Fa' cannot be true unless 'a' denotes, so that Frege's quantification theory is formally adequate.

5.6 Frege on 'Exists': A Prima Facie Problem We noted in section 5.4 that in the kind of Parmenidean language which Frege and Russell accept 'a exists' does not admit of a false interpretation. It is time now to note that it also does not admit of a true interpretation, when 'a' is construed as a name.

Preparatory to discussing Frege's view in this regard, let us distinguish between singular and general existential statements, as follows: Statements of the form

$$(E_a) \forall \text{ exists}$$
and their denials are **singular existential statements**. 'Socrates exists' and 'Socrates does not exist', *e.g.*, are singular existential statements. Statements of the form

\[(Eg) \beta's \text{ exist}\]

and their denials are **general existential statements**. 'Horses exist' and 'horses do not exist', *e.g.*, are general existential statements. The statement 'Pegasus exists', *e.g.*, may be said to be a false singular statement because there is no such individual. The statement 'Unicorns exist', *e.g.*, may be said to be a false general existential statement because there is no such kind of creature.

When an expression which is used as a proper name is combined with the predicate 'exists', the resulting (unanalyzed) statement is singular. When an expression which is used as a general term is combined with the predicate 'exists', the resulting statement is general. Quantification theory provides us with an adequate account of \((Eg)\) statements. The statement 'Horses exist', *e.g.*, is obviously equivalent to 'there are horses'; and this statement, read as \((3x)(x \text{ is a horse})\), we know how to interpret in Frege's quantification theory. Let us say that the statement

\[(Eg)-Q (3x)(x \text{ is } \beta)\]

is the Fregean analogue to \((Eg)\) above. Now, if quantification theory is to provide us with a satisfactory account not only of \((Eg)\) statements but also of \((Es)\) statements, then we must provide an \((Es)-Q\) analogue to \((Eg)\) above.

On the face of it, however, this will be a difficult task, since \((3x)(x \text{ is } v)\) is ruled meaningless by Frege and Russell. On the other hand, 'Pegasus exists', *e.g.*, is not meaningless in English. The adequacy of quantification theory as a **comprehensive** account of our concept of existence
depends upon its ability to explain this idiom of English in which 'exists' appears as the predicate of singular propositions. In the absence of such an account the claim that 'exists' is not predicable of individuals is a mere dogma which appear untrue.

On p. 205 we noted Russell's view that, if the subject of a proposition cannot be supposed not to exist, then it is not a proper name. But then, on this account, either Pegasus cannot fail to exist, or 'Pegasus' is not a proper name. It is not apparent, however, that either of these claims is true. For more light than Russell provides we turn to Frege.

Frege proposes a criterion for proper names which is different from Russell's—and, I think, better; it is as follows:

The concept (as I understand the word) is predicate. [In a footnote Frege adds: "It is, in fact, the reference of a grammatical predicate".] On the other hand, a name of an object, a proper name, is quite incapable of being used as a grammatical predicate.

In Frege's view, proper names can appear only as subjects in propositions, and have objects as their references. General terms, on the other hand, can appear as predicates (or subjects) in propositions, and have concepts as their references. Frege writes:

I speak of properties asserted of a concept, and I allow that a concept may fall under a higher one. I have called existence a property of a concept. How I mean this to be taken is best made clear by an example. In the sentence "there is at least one square root of 4", we have an assertion, not about (say) the definite number 2, not about -2, but about a concept, square root of 4; viz. that it is not empty.

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1 Frege, G., 'On Concept and Object', as contained in Geach and Black, p. 43.

2 Ibid., pp. 48-9.
Existential claims are thus accounted for in terms of the emptiness and non-emptiness of predicates. This view combined with the view that singular terms cannot appear as predicates was bound to lead to the conclusion that singular existential claims are meaningless. And of course it did; Frege writes:¹

"...what is asserted about a concept can never be asserted about an object; for a proper name can never be a predicative expression, though it can be part of one. I do not want to say that it is false to assert about an object what is asserted here about a concept; I want to say it is impossible, senseless, to do so. The sentence "there is Julius Caesar" is neither true nor false, but senseless.

It is evident from this that Frege's various views do not come together into a satisfactory account of singular existence statements, and this leaves us wondering what 'Caesar exists', e.g., means: its apparent (Eₐ)ₚ analogue '(∃x)(x is Caesar)' is meaningless.

Elsewhere in Frege's philosophy, however, a way of handling singular existence statements is suggested by what he says. Frege, as everyone knows, distinguishes the sense (meaning) of singular terms from their reference. (His reasons for doing so are, I think, mistaken; but we may ignore them here.) He writes:²

The sense of a proper name is grasped by everybody who is sufficiently familiar with the language or totality of designations to which it belongs; but this serves to illuminate only a single aspect of the reference, supposing it to have one. Comprehensive knowledge of the reference would require us to be able to say immediately whether any given sense belongs to it. To such knowledge we never attain.

In a footnote to this passage Frege adds:

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¹ 'On Concept and Object', as contained in Geach and Black, pp. 49-50.
² 'On Sense and Reference', as contained in Geach and Black, p. 57-8.
In the case of an actual proper name such as "Aristotle" opinions as to the sense may differ. It might, for instance, be taken to be the following: the pupil of Plato and teacher of Alexander the Great. Anybody who does this will attach another sense to the sentence "Aristotle was born in Stagira" than will a man who takes as the sense of the name: the teacher of Alexander the Great who was born in Stagira. So long as the reference remains the same, such variations of sense may be tolerated, although they are to be avoided in the theoretical structure of a demonstrative science and ought not to occur in a perfect language.\(^1\)

If associated with every singular term \(V\) there is an individual concept (the sense of the expression), then we could express the fact that \(V\) exists (or does not exist) by saying that this individual concept is (or is not) instantiated. If, as Frege suggests, 'Aristotle' may be taken to mean 'the teacher of Alexander the Great who was born in Stagira', then 'Aristotle' could be dropped in favor of the latter expression, which could then be eliminated a la Russell's theory of descriptions.

But two consequences of Frege's definition of 'Aristotle' as 'the teacher of Alexander the Great who was born in Stagira' emerge which should cause us to reject the definition: 1) It excludes the possibility of our ever learning that Aristotle had not in fact taught Alexander, that (e.g.) this was a piece of fiction invented by a latter biographer. 2) The definition also implies that there are no possible circumstances in which Aristotle

\(^1\) [N.B., on Frege's view, although the truth-value of (1) Aristotle was born in Stagira will be constant through a variation in the sense of 'Aristotle' provided the reference is constant, the modal status of that proposition may vary. Relative to Frege's first definition of 'Aristotle' as 'the pupil of Plato and teacher of Alexander', (1) is contingent. Relative to his second definition of 'Aristotle' as 'the teacher of Alexander who was born in Stagira', (1) is necessary.]
would not have taught Alexander; hence, if Alexander had died at birth, Aristotle would not have existed.

Concepts, as F. H. Bradley was fond of reiterating against the empiricists, are generic, not individual. I am unwilling then to explain the existence (or non-existence) of an individual in terms of the instantiation (or non-instantiation) of an individual concept. That a certain predicate is instantiated will tell us that a certain kind of individual exists. But it will not tell us which individual of this kind exists. Not even a predicate which can apply at most to one individual and which in fact applies to me seems adequate to express my existence. The predicate 'sole student of philosophy at 1029 Dennis Cr E, Rd, B.C.', e.g., applies to me. But it might have been instantiated by someone else. Therefore, the fact that this predicate is instantiated is not enough to prove that I exist, since it might have been instantiated even if I had not existed.

5.7 Conclusion We see that the application of Frege's quantification theory to the analysis of reasoning in English presents certain problems. But, as we will see in the next chapter, these problems are not insurmountable.
6.0 Introduction Drawing upon unpublished sources, my aim in this chapter is to present Russell's philosophy of existence and develop it into a solution of the ontological problems which are now before us.

6.1 Bradley and Russell on Reference to Particulars When Russell was young, F. H. Bradley was the dominant philosopher in England. In an unpublished letter to Bradley dated 29 September 1909 Russell wrote, 'I learnt more from your works than from those of any other philosopher of our time'. Though often neglected, Bradley's influence upon Russell (at least by way of reaction) was profound. Bradley was, of course, a monist who (in opposition to the empiricists) believed that every judgment, properly understood, attributes a predicate to the whole of reality. Russell's eventual opposition to this point of view is clearly stated in this passage:

The traditional view would make the universe itself the subject of various predicates which could not be applied to any particular thing in the universe, and the ascription of such peculiar predicates to the universe would be the special business of philosophy. I maintain, on the contrary, that there are no propositions of which the "universe" is the subject; in other words, that there is no such thing as the "universe". What I do maintain is that there are general propositions which may be asserted of each individual thing, such as the propositions of logic. This does not involve that all the things there are form a whole which could be regarded as another thing and be made the subject of predicates. It involves only the assertion that there are properties

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which belong to each separate thing, not that there are properties belonging to the whole of things collectively. The philosophy which I wish to advocate may be called logical atomism or absolute pluralism, because, while maintaining that there are many things, it denies that there is a whole composed of those things.

The presumption from which an empiricist like Mill sets out is that singular judgments, being the least abstract ones we can form, should serve as the foundation of all knowledge about the world. A good deal of this point of view survives in Russell's logical atomism. But for a philosopher like Bradley singular judgments are the most abstract and unsatisfactory judgments we can form, for they depend upon the unreal divisions of Reality into independent parts. Today, I suppose, no one accepts Bradley's monism and, of course, it is completely false. But I do not think for that reason Bradley's work should be neglected. On the contrary, he is a useful corrective to the empiricists, who at their worst seem almost to suggest that the senses provide us with instantaneous photographs of a world which is pressing itself against our bodies. But, when we recall how tenuous is the connection between the senses and reality, we see that monism cannot be refuted merely by pointing to the appearance of diversity. The grand issue of monism versus pluralism, however, is not one we can explore here. Instead, we will present certain views of the empiricists which form the background to Russell's theory of proper names, and then see how Bradley opposed these views. When we approach matters in this way, we will be in a position to understand the true import of Russell's often criticized, though rarely understood, theory.

of proper names. We will see that, though Russell made some false deductions from his theory, it is by no means as implausible as his critics (including Bradley) suppose.

Locke believed that, since particulars alone truly exist, our experience must be of particulars. Universals, he says, 'are only creatures of our own making';¹ and the process by which we are supposed to make them he calls *abstraction*; he writes:²

Words become general by being made the signs of general ideas: and ideas become general, by separating from them the circumstances of time and place, and any other ideas that may determine them to this or that particular existence. By this way of abstraction they are made capable of representing more individuals than one; each of which having in it a conformity to that abstract idea, is (as we call it) of that sort.

But, to deduce this a little more distinctly, it will not perhaps be amiss to trace our notions and names from their beginning, and observe by what degrees we proceed, and by what steps we enlarge our ideas from our first infancy. There is nothing more evident, than that the ideas of the persons children converse with (to instance in them alone) are, like the persons themselves, only particular. The ideas of the nurse and the mother are well framed in their minds; and, like pictures of them there, represent only those individuals. The names they first gave to them are confined to these individuals; and the names of nurse and mamma, the child uses, determine themselves to those persons. Afterwards, when time and a larger acquaintance have made them observe that there are a great many other things in the world, that in some common agreements of shape, and several other qualities, resemble their father and mother, and those persons they have been used to, they frame an idea, which they find those many particulars do partake in; and to that they give, with others, the name *man*, for example.


²Ibid., pp. 16-8. [bk III, ch. 3, sec's 6-7]
And thus they come to have a general name, and a general idea. Wherein they make nothing new; but only leave out of the complex idea they had of Peter and James, Mary and Jane, that which is peculiar to each, and retain only what is common to them all.

What Locke says in this passage is false. He assumes that acquaintance with particulars suffices to give children clear ideas of individuals and competence in the use of proper names. Then through a kind of abstraction from detail children proceed to form general ideas and thus acquire their competence in the use of general terms. But very young children do not in fact possess the kind of competence Locke says they do. As Leibniz observed, very young children will call practically anyone by the names assigned to their parents; moreover, it has been my experience that they will perversely continue to do so despite their parents' repeated attempts at correction.

Bradley, a persistent critic of Locke's theory of abstraction, acutely observes:

To know a thing as the one thing in the world, and as different from all others, is not a simple achievement. If we reflect on the distinctions it implies, we must see that it comes late to the mind. And, on turning to facts, we find that animals of superior intelligence are clearly without it, or give us at least no reason at all to think that they possess it. The indefinite universal, the vague felt type, which results from past perceptions and modifies present ones, is palpably the process of their intellectual experience. And when young children call all men father, it is the merest distortion of fact to suppose that they perceive their father as individual, and then, perceiving other individuals, confuse a distinction they previously made.

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In Bradley’s view, the objective relata of sensation are not individuals but qualities. In the empiricist tradition, of course, there is a strong presumption that what we perceive when we use our senses must be an individual. Indeed, so strong is this presumption that, when Hume looked inside to see the individual who had his qualities and could not find him but only his qualities, he seemed tempted to infer that he does not exist. But perhaps the proper inference to make would have been that the individual qua possessor of qualities is not in any case an object of perception. Such at any rate was Aristotle’s view, who wrote:

Though the act of sense-perception is of the particular, its content is universal—is man, for example, not the man Callias.

(Analytica Posteriora 100a15)

Like Quine, Bradley would insist upon ‘the primacy of predicates’—that is, against Locke, they say:

We may insist that what are learned by ostension, or direction confrontation, be never names but solely predicates.

For Bradley our experience provides us with general ideas; and so the problem for him, unlike Locke, will be to explain how, given our general ideas, we proceed to the ideas of particulars. But after a detailed examination of the traditional forms of judgment, he concludes that it is impossible to from ideas of particulars; he writes:

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3 See The Principles of Logic, vol. I, chs I and II.

4 Ibid., p. 49.
Ideas are universal, and, no matter what it is that we try to say and dimly mean, what we really express and succeed in asserting, is nothing individual.

The 'sensible particular' is for Bradley a 'vicious abstraction'. In his view there is absolutely no way to tie discourse to individual pieces of reality. That is to say, we cannot make reference to particulars and then predicate qualities of them.

'A sign', Bradley said, 'cannot possibly be destitute of meaning'. And 'meanings', he went on to say, 'are generic and universal'. It follows, Bradley thought, that not even proper names can be used to refer to individuals. For a proper name could apply to an individual only in virtue of that individual's satisfaction of a generic condition laid down as a definition of its name, so that in using the name we would not be talking about this individual in particular but about any individual satisfying that condition—i.e., proper names, like other words, are general.

In this connection let us consider what Leibniz has to say on the topic of proper names. After remarking that proper names are 'general in their origin', Leibniz observes:

Paradoxical as it may appear, it is impossible for us to have the knowledge of individuals, and to obtain the means of determining exactly the individuality of anything, at least of keeping it by itself; for all the circumstances may reappear; the smallest differences are to us insensible. ... The most important factor in the problem is the fact that individuality includes infinity, and only he who is capable of comprehending it can have the knowledge of the principle of individuation of this or that thing.


3 Ibid., p. 309.
In Leibniz's view (as we saw earlier) to every possible individual there corresponds an individual concept\(^1\)

so complete that it is sufficient to comprise and to allow the deduction from it of all the predicates of the subject to which this notion is attributed.

Presumably, these individual concepts give the meanings of proper names. But, if the possession of individual concepts (in Leibniz's sense) were necessary to the correct use of proper names, then they would be the private reserve of God. And so, Bradley might say, Leibniz's remarks do not show that it is possible for us to make reference to particulars, nor do they illuminate the use of proper names in natural lanaguages.

In Russell's view, Leibniz made the mistake of agreeing that 'a sign cannot possibly be destitute of meaning'. In 'On the Meaning and Denotation of Phrases', an unpublished paper written shortly before 'On Denoting' [June, 1905], he writes (p. 1):

A proper name, such as Arthur Balfour, is destitute of meaning, but denotes an individual.

Prima facie, Leibniz attributes too much meaning to proper names, and Russell too little. From the common premise that meanings are generic, Leibniz and Russell move in opposite directions in their attempts to explain how reference to an individual is possible. Leibniz can say that, by the identity of indescernibles, only one individual can answer to an individual concept. Russell can say that a proper name is a meaningless mark applied to a directly perceived individual which, because it is perceived qua individual, does not need to be individuated by analysis.

Both Leibniz and Russell make dubious assumptions. Our aim at the moment, however, is merely to elucidate their doctrines. The contrast between the two comes out clearly in the following unpublished passage from Russell:¹

When we look up (say) Aeschylus ['in a classical dictionary'], we find a number of statements of which no single one is merely definition, for Aeschylus was who he was, and every statement about him is not tautologous.

Russell's words here, unfortunately, lend themselves to more than one interpretation; but, when this passage is compared with another unpublished passage, their meaning becomes clear:²

...when the subject is simply named, like "Socrates", asking that we are acquainted with Socrates and thus know who is named by the name, we may understand the name without (theoretically) needing to know any of the properties of Socrates: he is simply a given this. When he is so given, obviously any proposition about his properties is synthetic.

In view of these passage, Russell's claim that proper names have no meaning thus comes to this: no proposition of the form

$$V \text{ is } \beta$$

is analytically true, where $V$ is a proper name and $\beta$ a predicate. Leibniz, on the other hand, holds that every true proposition of this form is analytic (in the sense defined by Kant).

Russell's quantification theory provides him with an immediate justification for his theory of proper names. For that theory permits us to infer $$(\exists \mu) \beta \mu$$ from $V \text{ is } \beta$. Since the former proposition is not analytic, neither is the latter. But recall that Leibniz, unlike Russell, adopted an in-

¹ On the Meaning and Denotation of Phrases', p. 3.

tensional approach to logic so as not to be dependent 'on the existence of individuals'. In his system, as we saw, from \( \forall x \, x = B \) we cannot that B's exist, only that they are possible; and propositions asserting possibility are arguably non-contingent. Thus, Leibniz's quantification theory is not inconsistent with his approach to proper names.

Russell came upon his theory of proper names before he developed his quantification theory. He in fact nowhere discusses the historical antecedents of his theory, though in an early draft of the *Principles of Mathematics* he refers to the theory of proper names as 'an old doctrine with a new sense'. I believe that the 'old doctrine' in question could only have been that of John Stuart Mill, who had written:

Proper names are not connotative: they denote the individuals who are called by them; but they do not indicate or imply any properties as belonging to those individuals. When we name a child by the name Paul, or a dog by the name Caesar, these names are simply marks used to enable those individuals to be made subjects of discourse. It may be said, indeed, that we must have had some reason for giving them those names rather than any others; and this is true; but the name, once given, is independent of the reason. A man may have been named John, because that was the name of his father; a town may have been named Dartmouth, because it is situated at

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2In *Portraits from Memory* (New York: 1963), p. 123, Russell uncharitably wrote: 'On the subject of names ... what Mill has to say is totally inadequate'. Russell's uncritical notes on Mill's *System of Logic*, however, prove his early acquaintance with Mill's version of the theory, and the two philosophers agree exactly upon the conditions a term must satisfy to be a proper name. In this situation we cannot but believe that Mill is Russell's (unacknowledged) source for his treatment of proper names. But Russell and Mill did differ as to which expressions in fact satisfy the conditions laid down for proper names. Mill thought that any ordinary proper name satisfies them, whereas Russell (because of his epistemology) often says that only 'this' and 'that' satisfy them.

the mouth of the Dart. But it is no part of the signification of the word "John", that the father of the person so called bore the same name; nor even of the word "Dartmouth", to be situated at the mouth of the Dart. If sand should choke up the mouth of the river, or an earthquake change its course, and remove it to a distance from the town, the name of the town would not necessarily be changed. That fact, therefore, can form no part of the signification of the word; for otherwise, when the fact confessedly ceased to be true, no one would any longer think of applying the name.

To support these claims, Mill appeals to Locke, who wrote:\footnote{Locke, J., An Essay concerning Human Understanding (New York: 1959), vol. II, pp. 58-60. [bk III, ch 4, sec. 4]}

That essence, in the ordinary use of the word, relates to sorts, and that it is considered in particular beings no further than as they are ranked into sorts, appears from hence: that, take but away the abstract ideas by which we sort individuals, and rank them under common names, and then the thought of anything essential to any of them instantly vanishes: we have no notion of the one without the other, which plainly shows their relation. It is necessary for me to be as I am; God and nature has made me so: but there is nothing I have that is essential to me. An accident or disease may very much alter my colour or shape; a fever or fall may take away my reason or memory, or both; and an apoplexy may leave neither sense, nor understanding; no, nor life. Other creatures of my shape may be made with more and better, or fewer and worse faculties than I have; and others may have reason and sense in a shape and body very different from mine. None of these are essential to the one or the other, or to any individual whatever, till the mind refers it to some sort or species of things; and then presently, according to the abstract idea of that sort, something is found essential. Let any one examine his own thoughts, and he will find that as soon as he supposes or speaks of essential, the consideration of some species, or the complex idea signified by some general name, comes into his mind; and it is in reference to that that this or that quality is said to be essential. So that if it be asked, whether it be essential to me or any other particular corporeal being, to have reason? I say, no; no more than it is essential to this white thing I write on to have words in it. But if that particular being is to be counted of the sort man, and to have the name man given it, then reason is essential to it; supposing reason to be a part of the complex idea
the name man stands for: as it is essential to this thing I write on to contain words, if I will give it the name treatise, and rank it under that species. So that essential and not essential relate only to our abstract ideas, and the names annexed to them; which amounts to no more than this, That whatever particular thing has not in it those qualities which are contained in the abstract idea which any general term stands for, cannot be ranked under that species, nor be called by that name; since that abstract idea is the very essence of that species.

This passage from Locke may be thought of as a gloss on Aristotle’s claim (which we presented earlier) that ‘Nothing which is not a species will have an essence’.¹ In Mill, Locke’s views emerge as follows:²

No essential proposition can be reckoned such which relates to an individual by name, that is, in which the subject is a proper name. Individuals have no essences, ... For the names of individuals imply no properties.

Against this view, however, Bradley remarks:³

The name of an individual must carry with it and imply certain attributes, or else its attachment to that individual becomes a psychological impossibility.

There is something to what Bradley says. However, because implication is a relation between propositions, not names and properties, it is best to recast Mill’s view as follows: no proposition of the form

\[ v \text{ is } \beta \]

is analytically true, where \( v \) is a proper name and \( \beta \) a predicate. We may now

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¹ *Metaphysica* 1030a10-2; see pp. 75-6 of this thesis.

² *A System of Logic*, p. 73.

understand Bradley to be denying this recast claim and saying that, if we identify $v$ in terms of its $\beta$-ness, then $\forall v \beta$ is analytically true. This view finds some support in an argument of Geach's, as follows:

The sense of a proper name certainly does not involve anything about the peculiarities of the individual so named, which distinguish it from other individuals of the kind: a baby, a youth, an adult, and an old man may be unrecognizably different, although the same name is borne throughout life. But it is meaningless to say without qualification that the baby, the youth, the adult, and the old man are "the same", or "the same thing", and that this is what justifies us in calling them by the same name; nor yet is it a matter for our free decision whether or not they are to be deemed "the same". "The same" is a fragmentary expression, and has no significance unless we say or mean "the same $X$", where "$X$" represents a general term. ... What is implied by our use of the same name throughout a period of years is that the baby, the youth, the adult, and the old man are one and the same man. In general, if an individual is presented to me by a proper name, I cannot learn the use of the proper name without being able to apply some criterion of identity; and since the identity of a thing always consists in its being the same $X$, e.g. the same man, and there is no such thing as being just "the same", my application of the proper name is justified only if (e.g.) its meaning includes its being applicable to a man and I keep it to one and the same man.

This strange argument calls to mind Franz Kafka's story, 'The Metamorphosis', which begins: 'As Gregor Samsa awoke one morning from uneasy dreams he found


2[I am not sure that I have grasped the intended meaning of Geach's argument, especially insofar as it depends upon his curious analysis of identity. But he does offer the argument as a refutation of Locke's view that nothing is essential to individuals (see his p. 68), and he thinks the Mill-Russell theory of proper names 'entirely false'. (p. 66) But whatever the argument I am sure that it issues in a false conclusion—viz., that being a man (e.g.) may be part of the meaning of the proper names of people. This conclusion, understood in its most natural way, must mean that, just as nothing which is a horse can fail to be a mammal, so nothing which is Socrates (e.g.) can fail to be a man.]
himself transformed in his bed into a gigantic insect*. It is true, I suppose, that one can learn the correct use of a name only if one is capable of identifying its referent, and that one can identify an individual only in terms of its general characteristics. Hence, Russell is wrong in his suggestion above (p. 237) that we could know who is named by 'Socrates' without knowing any of his properties, and Bradley is right in his observation:¹

Unless the person were recognized as distinct, he would hardly get a name of his own, and his recognition depends on his remaining the same throughout change of context. We could not recognize anything unless it possessed an attribute, or attributes, which from time to time we are able to identify.

It nevertheless does not follow that an individual could not have failed to possess the characteristics by which we happen to identify it.

A good deal of the Idealist position depends upon the (false) contention that, because every term has a universal meaning, no term may be used to refer to anything in particular but must somehow qualify reality as a whole.² For the Idealist the general is given in experience, and the particular is an abstraction. Moreover, in his view all abstraction involves falsification, so that our observations of the world are thought illusory insofar as they are embodied in singular judgments. For a time Russell accepted the Idealist philosophy; he describes his liberation from it as follows:³

During 1898 [at the age of 26], various things caused me to abandon both Kant and Hegel. I read Hegel's Greater Logic, and thought, as I still do, that all he says about mathematics is muddle-headed nonsense. I came to disbelieve Bradley's arguments against relations, and to dis-

trust the logical bases of monism. I disliked the subjectivity of the "Transcendental Aesthetic". But these motives would have operated more slowly than they did, but for the influence of G. E. Moore. He also had had a Hegelian period, but it was briefer than mine. He took the lead in rebellion, and I followed, with a sense of emancipation. Bradley argued that everything sense believes in is mere appearance; we reverted to the opposite extreme, and thought that everything is real that common sense, uninfluenced by philosophy or theology, supposes real. With a sense of escaping from prison, we allowed ourselves to think that grass is green, that the sun and stars would exist if no one was aware of them, and also that there is a pluralistic timeless world of Platonic ideas. The world, which had been thin and logical, suddenly became rich and varied and solid.

I believe that commentators have not sufficiently emphasized the role which Bradley had in determining Russell's thought. It is evident from the above passage, e.g., that the famous ontological excesses of the Principles of Mathematics have their origin, not in Russell's reflection upon the logical and mathematical problems he was writing about, but in his reaction against Bradley. That is why Russell never seems, even when appropriate, to use his ontological assumptions to solve a logical or mathematical problem.

There is another area of Russell's thought where Bradley's influence is particularly important—viz., in the area of denoting. I grant, of course, that Frege and Peano provide the main logical background to Russell's theory of denoting. But I think that the main philosophical background comes from Bradley and (to a lesser extent) Meinong. Denoting expressions and names were for Russell at the time of the Principles of Mathematics what we use to refer to things; they were the link between language and the world at large. If Russell gave more thought than others to explaining how we are able to refer to individual bits of the world and talk about them, it is partly because Bradley had said that it is impossible to do so. Russell answers Bradley:  

[Bradley is right to say] Words all have meaning, in the simple sense that they are symbols which stand for something other than themselves. But a proposition, unless it happens to be linguistic, does not itself contain words: it contains the entities indicated by words. Thus meaning, in the sense in which words have meaning, is irrelevant to logic. But such concepts as a man have meaning in another sense: they are, so to speak, symbolic in their own logical nature, because they have the property which I call denoting. That is to say, when a man occurs in a proposition (e.g. "I met a man in the street"), the proposition is not about the concept a man, but about something quite different, some actual biped denoted by the concept. Thus concepts of this kind have meaning in a nonpsychological sense. And in this sense, when we say "this is a man", we are making a proposition in which a concept is in some sense attached to what is not a concept. But when meaning is thus understood, the entity indicated by John does not have meaning, as Mr Bradley contends; and even among concepts, it is only those that denote that have meaning. The confusion is largely due, I believe, to the notion that words occur in propositions, which in turn is due to the notion that propositions are essentially mental and are to be identified with cognitions. But these topics of general philosophy must be pursued no further in this work.

I surmise that the Principles would have been a good deal more intelligible than it is if Russell had not elected to suppress these topics of general philosophy.

We conclude this section with some remarks on the evolution of Russell's views concerning proper names, in which we note that as the years moved on Russell came closer and closer to the Idealist position he abandoned in 1898.

In the 'Philosophy of Logical Atomism' Russell writes: ¹

Proper names = df words for particulars.

Particulars, as he says, ² are substances in the metaphysical sense, and can be known only through acquaintance. This was the view which Russell main-

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² See ibid., p. 203.
tained for many years. 'It is fairly obvious', he remarks in *Human Knowledge* (New York: 1962), p. 73, 'that proper names owe their existence in ordinary language to the concept of "substance".' In 1940 Russell was decisively to reject his old account of proper names insofar as it depends upon the concept of substance; he writes:

One is tempted to regard "this is red" as a subject-predicate proposition; but if one does so, one finds that "this" becomes a substance, an unknowable something in which predicates inhere, but which, nevertheless, is not identical with the sum of its predicates. Such a view is open to all the familiar objections to the notion of substance. ...

I wish to suggest that "this is red" is not a subject-predicate proposition, but is of the form "redness is here"; that "red" is a name, not a predicate; and that what would commonly be called a "thing" is nothing but a bundle of coexisting qualities such as redness, hardness, etc.

For years 'this' and 'that' had been Russell's paradigms of proper names. Apparently, 'red' emerges as the new paradigm of a proper name. But I will ignore this view, except to observe that Russell never had much luck in picking as proper names expressions which looked like proper names to others besides himself. For our purposes it is enough to notice that on his mature view the particular subject *this* has for Russell, as it had for Bradley, disappeared. But, whereas for Russell the subject of 'this is red' is a discontinuous particular of which 'red' is the name, for Bradley its subject is Reality. For both philosophers, particulars in Locke's sense appear less substantial than qualities.

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Concerning "A is" we have a kind of ontological argument. If A were not, its being could not be denied, for the denial would make it a term, and if it is a term, it is. Hence the denial of being is self-contradictory.

This curious argument is repeated at greater length in the Principles of Mathematics (p. 449):

Being is that which belongs to every conceivable term, to every possible object of thought—in short to everything that can possibly occur in any proposition, true or false, and to all such propositions themselves. Being belongs to whatever can be counted. If A be any term that can be counted as one, it is plain that A is something, and therefore that A is. "A is not" must always be either false or meaningless. For if A were nothing, it could not be said not to be; "A is not" implies that A is. Thus unless "A is not" be an empty sound, it must be false—whatever A may be, it certainly is. Numbers, Homeric gods, relations, chimeras and four-dimensional spaces all have being, for if they were not entities of a kind, we could make no propositions about them. Thus, being is a general attribute of everything, and to mention anything is to show that it is.

But Russell does not think that his 'kind of ontological argument' could be used to prove the existence of God (or of anything else), for he goes on (pp. 449-50) to distinguish existence from being as follows:

Existence, on the contrary, is the prerogative of some only amongst beings. To exist is to have a specific relation to existence—a relation, by the way, which existence itself does not have. This shows, incidentally, the weakness of the existential theory of judgment—the theory, that is, that every proposition is concerned with something that exists. For if this theory were true, it would still be true that existence itself is an entity. Thus the consideration of existence itself leads to non-existential propositions, and so contradicts the theory. The theory seems, in fact, to have arisen from neglect of the distinction between existence and being. Yet this distinction is essential if we are ever to deny the exis-
tence of anything. For what does not exist must be some-
thing, or it would be meaningless to deny its existence;
and hence we need the concept of being, as that which be-
longs even to the non-existent.

When we discussed these passages earlier (pp. 61-2), we concluded that Rus-
sell, like Parmenides, thought that we cannot talk about something unless in
some sense it is. Therefore, (thought Russell), when we say (e.g.) 'Pegasus
does not exist', we must in one sense admit that he is (admit, i.e., his be-
ing) while in another sense deny that he is (deny, i.e., his existence).
Otherwise, the denial that something is becomes self-contradictory. Or so
Russell thought.

Shortly after writing most of the Principles Russell became aware of
Frege's alternative analysis of existence and refers to it in Appendix A of
the Principles (see p. 506). But he did not immediately endorse that analy-
sis. It will be several years before Russell approaches the sophistication
which Frege displayed in the Foundations of Arithmetic (first published in
1884). In that work, as we saw in section 3.8, Frege argues that 'exists'
is predicable only of concepts and therefore the ontological argument is
fallacious. In the passages cited above, however, Russell seems to indis-
criminately apply the ontological argument to everything, as if this made
the argument innocuous. In this connection the following entry (p. 1) from
Russell's undated, unpublished notes on Frege is significant:

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1The manuscript to the Principles of Mathematics is stamped by the Cam-
bridge University Press 'received 10 December 1902'.

2Russell took careful notes on many philosophers. He generally just re-
corded a page number from an author's work, and beside it summarized briefly
what he took to be the main point of that page. Sometimes, however, as in
the case above, in brackets he commented on the view(s) thus summarized.
To assert existence is to deny 0; thus existence is a property of a concept. Hence failure of ontological argument. [mistake]

Of course, Russell came eventually to treat 'exists' as a second level predicate, and to abandon the being/existence distinction altogether. In 1905 he altered his theory of meaning, and so modified his ontology as not to be committed to Homeric gods, chimeras, etc. It is this later Russell whom commentators mostly discuss; Pears, e.g., begins his book on Russell as follows:¹

This book does not give a complete account of Russell's philosophy. It only covers the period from 1905 to 1919. At the beginning of that period his theory of meaning changed in a way which affected the whole of the subsequent development of his philosophy.

It is of course open to a commentator to divide the work of his study however he will. But in this case I think we get a truer picture of Russell's thought than Pears offers when we bear in mind that Russell himself said:²

There is one major division in my philosophical work: in the years 1899-1900 I adopted the philosophy of logical atomism and the technique of Peano in mathematical logic. This was so great a revolution as to make my previous work, except such as was purely mathematical, irrelevant to everything that I did later. The change in these years was a revolution; subsequent changes have been of the nature of an evolution.

With this remark in mind we will look for evolutionary changes between the Principles and Russell's later work.

According to the Principles, every existent thing is a being, but not


every being is an existent thing. We may, therefore, represent the ontology of the Principles by saying that for Russell there is a domain of beings, in which there is an inner domain of existent things. It would seem then that in 1905 when Russell ceased to talk about beings the outer domain disappeared from Russell's view and he was left only with the existent things. Some support for this way of viewing Russell's development is provided by the fact that he stopped using the term 'being' but continued to use 'exists'. But this picture of Russell's development introduces distortions. It would be more nearly correct to say that in 1905 Russell dispensed with the inner domain of existent things as a special class of beings, for his revised use of 'existent' more nearly approximates the old use of 'being' than it does the old use of 'existent'. In 'On Denoting' he writes:

In every proposition that we can apprehend (i.e. not only in those whose truth or falsehood we can judge of, but in all that we can think about), all the constituents are really entities with which we have immediate acquaintance.

Believing that we cannot be acquainted with what does not exist, Russell here commits himself to the existence of the objects of our discourse. Thus, where he had said in the Principles that it is impossible to deny the being of anything, he now says that it is impossible to deny the existence of anything. It is a constant assumption of Russell's that the genuine constituents (terms) of a proposition have being (existence).

But, of course, there are important differences between Russell's early use of 'being' and his later use of 'existent'. The predicate 'is a being' is supposed to apply vacuously to every individual. But notice how Russell

characterizes the predicate 'existent'; he writes:  

If you say that "Men exist, and Socrates is a man, therefore Socrates exists", that is exactly the same sort of fallacy as it would be if you said "Men are numerous, Socrates is a man, therefore Socrates is numerous", because existence is a predicate of a propositional function, or derivately of a class.

Thus, on this view 'existence' is not a predicate which applies vacuously to individuals: it does not apply at all to them. In this connection the following exchange is important:  

Question: Is there any word you [Russell] would substitute for "existence" which would give existence to individuals? Are you applying the word "existence" to two ideas, or do you deny that there are two ideas?

Mr Russell: No, there is not an idea that will apply to individuals. As regards the actual things there are in the world, there is nothing at all you can say about them that in any way corresponds to this notion of existence. It is a sheer mistake to say that there is anything analogous to existence that you can say about them. You get into confusion through language, because it is a perfectly correct thing to say "All the things in the world exist", and it is so easy to pass from this to "This exists because it is a thing in the world". There is no sort of point in a predicate which could not conceivably be false. I mean, it is perfectly clear that, if there were such a thing as this existence of individuals that we talk of, it would be absolutely impossible for it not to apply, and that is the characteristic of a mistake.

Russell's answer to this question is curious, and deserves a comment. First, there is nothing ill-formed about a predicate which, like 'green or not-green', cannot be withheld from anything. But, of course, we would not wish to treat 'exists' as such a predicate, since we would then be at a loss to explain

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2 Ibid., p. 241.
the truth of negative existential claims. Moreover, Russell says that, if 'exists' were predicatable of individuals, then it would have to apply to everything. But one wonders how, if Russell is right in treating 'exists' as a second level predicate, he can know what its extension would be had it been a first level predicate. What, e.g., would be the extension of 'numerous' had it been a predicate of individuals instead of classes? Which individuals then would be numerous? We cannot say. If Russell thinks he knows what would be the extension of 'exists' qua first level predicate, it may be because he confuses 'exists' in the new sense with 'being' in the old sense.

If Russell always adhered to the belief that we cannot talk about what does not exist and merely expressed this belief in different ways at different times, we must ask ourselves how he was able to reduce the ontology of the Principles of Mathematics to that which we find in 'On Denoting' and his subsequent writings. In section 1.7 we answered this question, but I will repeat the answer here. Believing that discourse cannot have a nonexistent subject, Russell inferred in the Principles that the present king of France must exist, since we talk about him. Believing that discourse cannot have a nonexistent subject, Russell later inferred that, because the present king of France does not exist, we cannot really talk about him at all. The theory of descriptions is supposed to show us that talk which appears to have the present king of France as its subject does not really have this subject at all. Russell reduces his ontological commitment by so paraphrasing the sentences in which 'the present king of France' occurs as subject that they no longer contain such a subject.

We see, therefore, that the theory of descriptions is a move made within the context of a Parmenidean approach to ontological questions. Though
Russell's ontological position in the Principles is sometimes confused with that of Meinong in 'The Theory of Objects'. Meinong in fact approaches ontological questions in a non-Parmenidean way. Their respective positions are different in some quite fundamental ways.

In 'The Theory of Objects' Meinong holds that some objects 'do not by any means exist, and consequently cannot in any sense be real'. On 15 December 1904, however, Russell writes to Meinong:

I have always believed until now that every object must in some sense have being, and I find it difficult to admit unreal objects. In such a case as that of the golden mountain or the round square one must distinguish between sense and reference (to use Frege's terms): the sense is an object, and has being; the reference, however, is not an object. The difference between sense and reference is best illustrated by mathematical examples: "the square root of 4" is a complex sense, the reference of which is the number 2.

In this letter Russell objects to Meinong's admission of unreal objects. This admission contradicts both the Principles and Russell's later work. For in the Principles the reality (being) of everything is admitted, whereas in the later work the names of unreal objects are eliminated, so that in either case we cannot refer to anything unreal.

Meinong's ontological assumptions have often been criticized. But, if

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1I myself was guilty of this confusion in 'Russell's Unpublished Writings on Truth and Denoting', Journal of the Bertrand Russell Archives 7:12-3.

2As translated in Chisholm, R., Realism and the Background of Phenomenology (Glencoe, Illinois: 1960), p. 79.


4[Lackey's footnote: 'This is the closest Russell comes in all of his writings to adopting Frege's theory of sense and reference.']
we read him with a little charity, we see that the position he wished to ex-
press is akin to that of Leibniz; he writes: ¹

There is thus not the slightest doubt that what is sup-
pposed to be the Object of knowledge need not exist at all. But our account up to now may seem to leave room for the conjecture that wherever existence is absent, it not only can be but must be replaced by subsistence. But even this restriction is inadmissible, as may be seen by con-
trasting the characteristic functions of judging and as-
suming, a distinction I have attempted to maintain by con-
trasting the "thetic" and "synthetic" functions of thought. In the former case, the act of thought grasps a Sein [being], in the latter a Sosein [being-so]. ... Now it would accord very well with the aforementioned prejudice in favor of existence to hold that we may speak of a Sosein only if a Sein is presupposed. There would, indeed, be little sense in calling a house large or small, a region fertile or unfertile, before one knew that the house or the land does exist, has existed, or will exist. Nevertheless, their properties, and hence their Sosein, can be established. Doubtless, in the area of what can be known merely a posteriori, a claim as to the Sosein will be completely unjustifiable if it is not based on knowledge of a Sein; it is equally certain that a Sosein which does not rest on a Sein may often enough be utter-
ly lacking in natural interest. None of this alters the fact that the Sosein of an Object is not affected by its Nichtsein [Not-Being]. The fact is sufficiently impor-
tant to be explicitly formulated as the principle of the independence of Sosein from Sein.

The claim that Sosein is independent of Sein means in our terminology that the predicational use of 'to be' is independent of its existential use. For this view Meinong had the usual reasons; he writes: ²

Any particular thing that isn't real must at least be capable of serving as the object for those judgments which grasp its Nichtsein [Not-Being]. ...

In order to know that there is no round square, I must make a judgment about the round square. ... Those who like paradoxical modes of expression could very well say: "There are objects of which it is true that there are no such objects".

¹The Theory of Objects', pp. 81-2. ²Ibid., pp. 82-3.
From our study of Leibniz we know how to make sense of this paradoxical claim that some things do not exist, and that is to take the claim to mean that some substitution instance of "a does not exist" is true in a language where the predicational use of 'to be' is independent of its existential use and in which, consequently, 'exists' is predicable of individuals. We see then that Meinong, unlike the early Russell, does not set out with the intention of establishing a bountiful ontology. He rather, like Leibniz, sets out with the intention of showing that we can consider the nature of things independently of their being. This, of course, is denied in the Principles.

Russell was never attracted to Meinong's view that the predicational use of 'to be' is independent of its existential use. In this connection consider the following undated entries from Russell's unpublished notes on Meinong and his followers:

p. 7 Two sorts of judgments, thetic and synthetic; former assert being, latter being-so-and-so

p. 8 Latter may subsist when object does not have being. The Round Square is certainly both round and square. [Is the existent God both existent and God?]

p. 79 Whereas existence is temporal, being is timeless. Hence no existence is a subsistence. Only "actual" objects exist, and only those objects which exist are actual. But "being actual" is not the same as "existing", if only because the former is a Sosein. [Why not the latter?]

(In the margin of this entry (p. 79) Russell wrote, 'Connect with ontological argument'.)

p. 88 If A is impossible, we may have both "B differs from A" and "B does not differ from A", without B's being impossible. [Thus an object which does not subsist doesn't obey the law of contradiction. Point out that non-subsistent subsistent objects are impossible, and yet subsist.]
There is no way of telling with certainty when these notes were written. I presume that they were written late in 1904 or very early in 1905. On 15 December 1904 Russell wrote Meinong to thank him for sending 'The Theory of Objects', and said in his letter that he had read it 'with the greatest interest'.\(^1\) In October 1905 Mind carried a review by Russell of the work which Meinong had sent to him. It seems clear that his notes (of which I have cited some) were written with this review in mind. In that review Russell writes:\(^2\)

The chief objection to Meinong's view seems to me to lie in the fact that it involves denying the law of contradiction when impossible objects are constituents. If "A differs from B" and "A does not differ from B" are both to be true, we cannot tell, for example, whether a class composed of A and B has one member or two. Thus in all counting, if our results are to be definite, we must first exclude impossible objects. We cannot, if B is impossible, say "A and B are two objects"; nor can we strictly say "B is one object". And the difficulty is that impossible objects often subsist, and even exist. For if the round square is round and square, the existent round square is existent and round and square. Thus, something round and square exists, although everything round and square is impossible.

Ayer says that the range of objects in the *Principles* extended 'even to logically impossible things like round squares'.\(^3\) In fact, however, Russell nowhere says this. At the time he wrote the *Principles* Russell seems not to have devoted any thought to such impossible objects as the round square, though his definition of 'terms' as 'possible objects of thought' may be

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\(^1\)See 'Three Letters to Meinong', p. 16.

\(^2\)As reprinted in Lackey, ed., *Essays in Analysis*, pp. 80-1.

taken to suggest that he would have excluded impossible objects from his ontology. At any rate, it is often said that the impossible is strictly inconceivable. However that may be, by the time Russell came to consider Meinong's position he had reason enough to avoid reference to such impossible things as the class of all classes which are not members of themselves.

Meinong, of course, thinks that he is not committed to the being [Sein] of round squares. But (reasons Meinong) in order for us to know what we are talking about when we say that round squares are impossible, these objects must have a nature [Sosein] which is independent of their being [Sein]. To this argument Russell answers that existence is part of the nature of 'the existent round square'. It is not open for Meinong to reply, as a Fregean might, that 'exists' is not a predicate of objects. As we saw in section 4.5, if it is held that the predicational use of 'to be' is independent of its existential use, then 'exists' must be treated as a predicate of objects if we are to make any existential claims at all. Russell appreciated this point; for immediately after remarking that on Meinong's theory the existent round square is round and square and existent, he continues:¹

This ontological argument cannot be avoided by Kant's device of saying that existence is not a predicate, for Ameseder [Meinong's follower, who contributed a paper to the volume under review] admits (p. 79) that "existing" applies when and only when "being actual" applies, and that the latter is a Sosein. Thus we cannot escape the consequence that "the existent God" both exists and is God; and it is hard to see how it can be maintained, as Mally implies (p. 133), that this has no bearing on the question whether God exists. Thus I should prefer to say that there is no such object as "the round square".

Because he thinks it leads to the ontological argument not only for God's

¹*Essays in Analysis*, p. 81.
existence but for the existence of anything, Russell rejects the claim that the predicational use of 'to be' is independent of its existential use. But Meinong, having separated the two uses, is forced to introduce 'exists' as predicate which, as for Leibniz, can then enter into the nature [Sosein] of things.

Meinong's position thus seemed defective in various ways. Yet the argument by which Meinong sought to establish impossible objects is exactly analogous to the argument by which Russell sought in the Principles to establish beings. That argument is as follows: When we say, e.g., that 'a is F', there must be something about which we are speaking. Meinong has simply applied this reasoning to the case where a is impossible, as in the assertion 'round squares do not exist': rounds squares must have natures of their own, in terms of which we recognize that they are impossible. On this reasoning, Russell must bring impossible objects into his ontology.

But, as Russell observes in 'On Denoting',¹ 'the chief objection' to impossible objects 'is that such objects, admittedly, are apt to infringe the law of contradiction'. When Meinong read this charge, he replied that the law of contradiction applies only to what is possible, not to what is impossible. In his 1907 review of Meinong, Russell answers:²

This reply seems to overlook the fact that it is of propositions (i.e. of "Objectives" in Meinong's terminology), not of subjects, that the law of contradiction is asserted. To suppose that two contradictory propositions can both be true seems equally inadmissible whatever their subjects may be.

Russell's answer to Meinong seems exactly appropriate. If we maintain the proposition that nothing is both round and square, then we cannot—without

¹See Essays in Analysis, p. 107. ²Ibid., pp. 92-3.
contradiction—assert the proposition that something—viz., the round square—is both round and square.¹

Russell cannot admit impossible objects amongst his terms. How then is he to analyze the propositions (such as 'the round square does not exist') in which such terms seemed referred to? This question is best answered by again contrasting Russell's view to that of Meinong. In his 1905 review of Meinong, Russell remarks:²

There is, Meinong admits (p. 12) one strong argument in favour of the subsistence of the objects which he regards as non-subsistent, and that is, that such objects can be subjects of true and therefore subsistent propositions. But this argument, he says, depends upon regarding a proposition as a complex, and its subject as a constituent of it; and such a view, he thinks, can only be taken figuratively. I should have thought the subject of a proposition was a constituent of a complex in the fundamental sense from which all others are derivative, and that therefore the argument would be sound.

In the Principles, of course, Russell accepts that the constituents (terms) of propositions all have being. Therefore, since he cannot admit impossible objects into the realm of being, the analysis of 'the round square does not exist' must not involve treating the round square as a constituent of the proposition expressed by this sentence. The problem for Russell, then, is to explain how an expression like 'the round square' can appear to refer to something and yet fail to do so. The theory of descriptions, as we will soon see, solves this problem.

¹N.B., Meinong does hold that nothing is round and square; he says that impossible objects neither exist nor subsist.

²Essays in Analysis, p. 80.
I conclude this section with some scattered observations on the relation of the *Principles of Mathematics* to Russell's later work.

The topic of denoting is discussed at length in the *Principles* and in 'On Denoting'. In 'On Denoting' Russell is mainly concerned with the case where a phrase is denoting in form and yet does not denote anything. In the *Principles*, on the other hand, one would expect Russell simply to assign a being to a denoting phrase which lacks an existent denotation. But that is not what he in fact does. In his chapter on classes he writes (pp. 73-4):

> It is necessary to realize, in the first place, that a concept may denote although it does not denote anything. This occurs when there are propositions in which the said concept occurs, and which are not about the said concept, but all such propositions are false.

By allowing that a denoting-type phrase may lack a denotation, Russell anticipates his later theory; and by saying that the propositions are false in which such phrases occur he anticipates it yet again.\(^1\) Moreover, the following explanation from the *Principles* (p. 74) of what it is for a denoting-type phrase not to denote anything agrees exactly with Russell's later explanation:\(^2\)

> All denoting concepts, as we saw, are derived from class concepts; and a is a class concept when "x is an a" is a propositional function. The denoting concepts associated with a will not denote anything when and only when "x is an a" is false for all values of x. This is a complete definition of a denoting concept which does not denote anything.

Too much has been made of the differences between the *Principles* and

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\(^1\)See Russell, B., *Introduction to Mathematical Philosophy* (London: 1963), p. 179. (Of course, Russell's later distinction between primary and secondary occurrence introduces a degree of complexity which is lacking in the *Principles*.)

Russell's later work. His use of the outrageous ontology of the Principles even in the Principles itself is hesitant and inconsistent. This is not surprising. It was not his reflection upon the problems of denoting which led him to that ontology, and therefore he does not make much use of it in his attempts to solve those problems. As we mentioned above (p. 243), it was his over-enthusiastic rejection of absolute idealism which produced his brief lapse into the ontological excesses of the Principles; he writes:

I believed that a thing must exist if Hegel's proof that it cannot is invalid. ...
This gave me a very full universe.

Of course, I do not mean to deny that 'On Denoting' introduced some important differences in Russell's thought, especially in his theory of meaning. In his 1937 introduction to the second edition of the Principles (p. x) Russell tells us what those differences are:

In Chapter IV of the Principles it is said that "every word occurring in a sentence must have some meaning"; and again "Whatever may be an object of thought, or may occur in any true or false proposition, or can be counted as one, I call a term. ... A man, a moment, a number, a class, a relation, a chimaera, or anything else that can be mentioned, is sure to be a term; and to deny that such and such a thing is a term must always be false". This way of understanding language turned out to be mistaken. That a word "must have some meaning"--the word, of course, being not gibberish, but one which has an intelligible use--is not always true if taken as applying to the word in isolation. What is true is that the word contributes to the meaning of the sentence in which it occurs; but that is a very different matter.

As Russell observes in his new introduction, he did say in the Principles (p. 42) that 'every word occurring in a sentence must have some meaning'. But this view is twice contradicted in the Principles (p. 47 and 502) when

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he says 'such words as John merely indicate without meaning'. We have already seen in section 6.1 Russell's reasons for holding that proper names are 'destitute of meaning'. For now it is enough to note that, even if we adopt Russell's view of proper names, we must recognize that 'John is hungry' differs in meaning from 'George is hungry'. Thus, proper names, even if they do not have meanings in themselves, do nevertheless (as Russell says above) contribute to the meanings of the sentences in which they occur.

When we look carefully at what is said in the Principles, we see a mass of inconsistent pronouncements, from which the celebrated theory of descriptions will eventually evolve.

6.3 The Development of the Theory of Descriptions. In the Principles Russell says (p. 42):

The study of grammar, in my opinion, is capable of throwing far more light on philosophical questions than is commonly supposed by philosophers. Although a grammatical distinction cannot be uncritically assumed to correspond to a genuine philosophical difference, yet the one is prima facie evidence of the other, and may often be most usefully employed as a source of discovery. ... On the whole, grammar seems to me to bring us much nearer to a correct logic than the current opinions of philosophers; and in what follows, grammar, though not our master, will yet be taken as our guide.

44 Years later Russell was to say that in our attempts at serious thinking

we must not be content with the 'ambiguities and abominable syntax' of ordinary language; he adds:¹

Obstinate addiction to ordinary language in our private thoughts is one of the main obstacles to progress in philosophy.

Though Russell's attitude toward ordinary language was never one of uncritical acceptance, we see that, when he wrote the Principles, he tended to accept the grammatical structure of ordinary language as indicating, at its face value, important philosophical and logical distinctions. But, as we just saw, he was later to maintain the apparent logical form of unanalyzed sentences is often very different from what we see their true logical form to be once we have properly analyzed these sentences. This change in attitude was partly a consequence of the reflection which led him to the theory of descriptions. It will prove instructive for us to examine the troubles into which he was led by his early assumptions about the logical transparency of unanalyzed sentences.

In the Principles Russell writes (p. 43):

Whatever may be an object of thought, or may occur in any true or false proposition, or can be counted as one, I call a term. This, then, is the widest word in the philosophical vocabulary. I shall use as synonymous with it the words unit, individual, and entity. The first two emphasize the fact that every term is one, while the third is derived from the fact that every term has being, i.e. is in some sense. A man, a moment, a number, a class, a relation, a chimaera, or anything else that can be mentioned, is sure to be a term; and to deny that such and such a thing is a term must always be false.

Russell does not distinguish any words as syncategorematic, but divides terms into those indicated by proper names and 'those indicated by all other words'.

(p. 44) What term he though to be indicated by 'of', I would not venture to say. Within the context of a given proposition, however, he does restrict the notion of a term somewhat, as follows (p. 45):

I shall speak of the terms of a proposition as those terms, however numerous, which occur in a proposition and may be regarded as subjects about which the proposition is.

For Russell a proposition is a non-linguistic entity whose constituents are its terms. He treats it as axiomatic that the terms of a proposition have being. It is clear from his discussion that he would not regard 'of' as naming a constituent of the proposition expressed by the sentence 'George III is the father of George IV'. A question naturally arises therefore as to what Russell would take the terms of a given proposition to be. Though his discussion of this point is obscure, we may answer it as follows. Given the sentence \( F(a_1...a_n) \), Russell's view at the time of the *Principles* seems to be that (1) \( 'a_1',..., 'a_n', 'F\text{-ness}' \) name constituents of the proposition thus expressed, and (2) that proposition has no other constituents than these.

His views on the constituency of the propositions expressed by non-singular sentences are unintelligible. He wants to say, e.g., that an ambiguous man is a constituent of the proposition expressed by 'a man is foolish', but this overlooks the fact that ambiguity is a property of words rather than men.

Given the proposition expressed by 'A is different from B', Russell says that a question arises as to whether it is mere difference or rather the particularized relation the difference of A from B which is a constituent of the proposition expressed by 'A is different from B'. After an obscure discussion (pp. 49-52), he concludes that it is the unparticularized relation alone which is a constituent of this proposition—i.e., he concludes that the constituents of this proposition are A, B, Difference. The difference
of A from B is not a constituent of this proposition. In 'Meinong's Theory of Complexes and Assumptions' Russell supplements his remarks on particularized relations, as follows:¹

Weinong appears to hold that when a relation R is affirmed to hold between a and b, as in (say) "a is the father of b", what is really affirmed is the being or subsistence of the relation. But there are grave objections to this view. In the first place, it must be the relation particularised as relating a and b, not the abstract relation of paternity, whose being is supposed to be affirmed. But there are logical reasons for supposing that there are no such entities at all as particularized relations; most of these I have set forth elsewhere [in the Principles, pp. 50-2], but another is derived from false propositions. If what is actually meant by a relational proposition is the being of the particularized relation, then, when the proposition in question is not true, it must be meaningless: for it affirms the being of what, ex hypothesi, does not have being, and therefore there is nothing of which it affirms the being, and therefore it affirms nothing and is meaningless. In other words: every constituent of a proposition, whether this proposition be true or false, must have being; consequently, if the particularised relation is a constituent of the proposition in which it is supposed to occur, then, since such a proposition is significant when it is false, the particularised relation has being even when the terms are not related by the relation in question. Hence the being of the particularized relation is not what is asserted. It may be thought that this point has been unduly laboured; but it has a very important consequence. Since not all propositions assert or deny the existence or subsistence of an object, we can always take such object as the object of a judgment; and hence it is an easy step to the conclusion that we can never do so.

On the supposition that it is the being of the fatherhood of b by a that is affirmed by the proposition that a is the father of b, it follows (Russell says) that, if the proposition is false, then there is no being named by the expression 'the fatherhood of b by a'. But this is impossible. Therefore

¹Essays in Analysis, pp. 48-9.
the being of the particularized relation is neither affirmed nor denied by the proposition that a is the father of b. The conclusion of this argument is thus in accordance with what is said in the Principles—viz., that propositions do not have particularized relations as constituents.

We have the proposition expressed by the sentence

\[(S_1) \text{ a is different from b.}\]

In the passage just cited Russell reasons that, if the particularized relation

the difference between a and b

were a constituent of the proposition expressed by \((S_1)\), then the falsity of \((S_1)\) would guarantee the truth of the proposition expressed by the sentence

\[(S_2) \text{ the difference between a and b is not a being.}\]

But, since all terms have being, \((S_2)\) cannot be true. Therefore, particularized relations are not propositional constituents. This argument is very dubious, if only because it assumes that, even when a and b do not differ, the difference between them has being. Later in 'Meinong's Theory of Complexes and Assumptions' Russell suggests a different reason for not regarding particularized relations as propositional constituents, as follows:¹

Taking the abstract proposition \(aRb\), the first question must be: if the judgment "\(aRb\)" were true, would there be such a thing as "Relation R between a and b"? This is open to grave doubt. There is a relation R, and there are terms a and b; but if R relates a and b, then "Relation R between a and b" is simply the relation R, together with a reminder that a and b are related by it. If we try to mend matters by speaking of "a and b related by R", this again is merely "a and b, which, as a matter of fact, are related by R". The point of these remarks is, that the whole proposition \(aRb\) seems essential, and that there

¹*Essays in Analysis*, pp. 71-2.
is no relation particularised by its terms, as opposed to the abstract relation R; nor can we distinguish the terms as related from the terms simply, which as a matter of fact are related. Thus there seems no such entity as the blackness of the table; there is blackness, and the table, and the proposition "the table is black".

The suggestion in this passage seems to be that particularized relations cannot be propositional constituents because there are no such beings. Elsewhere in 'Meinong's Theory of Complexes and Assumptions' (p. 62) he says:

it seems plain that, when a and b are identical, there is no difference between a and b, which seems equivalent to "the difference between a and b does not have being".

In these passages there is a tendency to hold, against the Principles, that the definite description 'the difference between a and b' may apply to no being.

When 'the table is black' is false, Russell suggests that then the definite description 'the blackness of the table' is a misleading expression;¹ he continues:

This view, however, though it may be acceptable in the case of adjectives, such as blackness, seems in other cases less plausible. The view commended by inspection would rather be the following: There is, in any case, a proposition aRb, and in this proposition the abstract relation R occurs, not the relation particularized by its terms; but in the case where aRb is true, there is such an entity as the particularised relation, whereas, when aRb is false, there is no such entity. This entity, when it subsists, is distinct from the proposition. But the difficulty of this view is to see what it is that is denied when the particularized relation is said not to subsist; and this difficulty seems fatal to the view in question.

In this passage Russell becomes suspicious of the surface grammar of 'the blackness of the table', and suggests that it may designate something only

¹'Meinong's Theory of Complexes and Assumptions', Essays in Analysis, pp. 72-3.
when the proposition that the table is black is true. But in the end he is
drawn back to the view of the *Principles* that 'the blackness of the table'
designates a term in any case, since failure of reference is impossible.

The only theory of truth to which Russell was ever attracted is the
correspondence theory, but his ontological assumptions guarantee that there
will never be a failure of correspondence (see section 1.5, esp. pp. 38-40).
While Russell thought that true and false assertions each denote entities
of a kind (beings), he was at a loss to see how there could be a fundamental
difference between such assertions, and thus found himself in the unsatisfac­
tory position he describes at the end of 'Meinong's Theory of Complexes and
Assumptions':

> It may be said—and this is, I believe, the correct view—
> that there is no problem at all in truth and falsehood;
> that some propositions are true and some false, just as
> some roses are red and some white; that belief is a cer­
tain attitude towards propositions, which is called know­
ledge when they are true, error when they are false. ...  

Thus the analogy with red and white roses seems, in the
end, to express the matter as nearly as possible. What
is truth, and what falsehood, we must merely apprehend,
for both seem incapable of analysis. And so for the pre­
ference which most people—so long as they are not annoy­
ed by instances—feel in favour of true propositions,
this must be based, apparently, upon an ultimate ethical
proposition: "It is good to believe true propositions,
and bad to believe false ones".

Russell professes himself satisfied with this account of truth and falsehood.
But his words have a hollow ring, as well they should. After some preliminary
discussion we will see how his views on truth and falsehood will change in
the course of his unpublished writings.

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1*Essays in Analysis*, pp. 75-6.
Russell's search for the genuine constituents of propositions comes, in linguistic terms, to a search for the expressions that are used referentially in sentences. We may say—and I think Russell would agree—that an expression is used referentially in a given sentence if it licenses existential generalization.¹ Thus, if (e.g.) from

(1) Pegasus is a winged horse

we can infer

(2) (∃x)(x is a winged horse),

then 'Pegasus' is used referentially in (1). I.e., in Russell's terms Pegasus is a genuine constituent of the proposition expressed by (1). When we read '∃' as a quantifier of being—which is of course how it is to be read, since it is supposed to represent existence in the widest sense—we see that for Russell existential generalization will never fail for want of a referent. Given his ontological assumptions, when a denoting phrase or name occurs in a sentence there is a (perhaps nonexistent) to which it refers. These assumptions allow him to follow the surface grammar of sentences exactly, and to directly read out the constituents of the propositions expressed by sentences: every expression in the sentence will name a constituent of the proposition it expresses. But notice that, while he doubts that 'the blackness of the table' denotes anything, he calls it 'a misleading expression'. In the end, of course, Russell sets these doubts aside,² and returns to the ontology of


the Principles. These assumptions rob him of one sort of prima facie counter-examples to the claim that, despite surface grammar, a certain expression cannot be used referentially in a given sentence. Even when existential generalization is employed on such unanalyzed sentences as (1) above, it does not lead to a false conclusion, since in any case there is such a being as Pegasus. In his unpublished writings, however, we find him taking up another sort of prima facie counter-example to the naive view that the 'a' names a constituent of any proposition expressed by a sentence in which 'a' occurs. For these cases, as we will see, his ontological assumptions do not help him at all; and he is led to make some new distinctions which in turn will lead to the undoing of the old theory, and its naive assumptions about reality conforming to the syntax of ordinary language.

To understand the problems which arise in Russell's unpublished writings on denoting, it is necessary first to present certain of his background assumptions. The first is that the propositional constituents of the proposition expressed by the (unanalyzed) sentence 'F_{a_1} \ldots a_n' are given in a straightforward way by the ordered set \( \langle a_1, \ldots, a_n, F\text{-ness} \rangle \). We will say that the ordered set \( \langle a_1, \ldots, a_n, F\text{-ness} \rangle \) is associated with the sentence 'F_{a_1} \ldots a_n'. Now, we further assume that, when different sentences are associated with the same ordered set, they express the same proposition and mean the same thing. Finally, we assume that denoting phrases are used in sentences purely to specify their objects and that, if a name or denoting phrase in a given sentence is replaced by another name or denoting phrase with the same denotation, then the truth-value of the sentence will unchanged by the replacement.

It is evident why Russell should think this last claim true. Sentences
are said to be equivalent when they are associated with the same set of propositional constituents—and, of course, it is impossible to generate a difference in this set by replacing one term in a sentence with another having the same denotation, since in any case it is the denotation (and not the term) which is a propositional constituent. This view accords with our commonsense. Since (e.g.) 'the queen of England' and 'Elizabeth II' pick out the same individual, if the individual picked by the one term is promiscuous, then the individual picked out be the other term is promiscuous. Therefore, 'the queen of England is promiscuous' and 'Elizabeth II is promiscuous' cannot differ in truth-value. It is not our concept of the queen, nor yet the terms by which we refer to her, which is said (perhaps falsely) to be promiscuous; it is rather the queen herself, and both terms refer to this individual.¹

This all sounds well and good until we consider such sentences as 'the number of people at the party was greater than anyone expected', which Russell tells us 'becomes false by the substitution of 5432'.² That is, even if the number of people at the party = 5432 and if the number of people at the party was greater than anyone expected, it nevertheless is not true that 5432 was greater than anyone expected. In this connection we might mention the

¹Russell will eventually say that denoting phrases, unlike proper names, do not refer to anything at all, and hence do not name propositional constituents. It is interesting that in criticizing Russell's early assumptions about language, Whitehead 'denies that denoting phrases are names in the same sense as proper names'. Russell records this criticism on p. 93 of his unpublished paper 'On Meaning and Denotation'.

²See 'On Meaning and Denotation', p. 6.
familiar proposition that George IV wished to know whether Scott was the author of *Waverley*. Recalling that sentences are equivalent when they are associated with the same propositional constituents, we see that on the assumption that Scott = the author of *Waverley* the sentences 'George IV wished to know whether Scott was the author of *Waverley*' and 'George IV wished to know whether Scott was Scott' are equivalent, since they do not differ in their propositional constituents. But, as Russell says in 'On Denoting', 'an interest in the law of identity can hardly be attributed to the first gentleman of Europe'.

Doubts arise as to whether 'Pegasus' is used referentially in 'Pegasus is a winged horse' because it may be doubted whether Pegasus is a being. In 'Meinong's Theory of Complexes and Assumptions' Russell considered, and then set aside, such doubts. Now for a different kind of reason it may be doubted whether 'the author of *Waverley*' names a constituent of certain propositions even though the phrase occurs in the sentences expressing those propositions.

In his unpublished paper 'On Fundamentals' Russell writes (p. 18):

> If a complex A occurs in a complex B, and B occurs as entity in a complex C, then A does not occur as entity in C. Thus e.g. consider "People were surprised that Scott was the author of *Waverley". Here A = the author of *Waverley*, B = Scott was the author of *Waverley*, C = people were surprised that Scott was the author of *Waverley*. Here A occurs as entity in B: we may, without altering the truth or falsehood of B, substitute for A either Scott or any complex which denotes Scott. But if we substitute Scott for A in C, we find: "People were surprised that Scott was Scott", so that a true proposition has been turned into a false one. Hence, A does not occur as entity in C.

Though he expresses himself with characteristic obscurity, Russell here re-

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1 See 'On Denoting', *Essays in Analysis*, p. 110.
cognizes that, even if someone is the author of *Waverley* so that his being (existence) is not in doubt, the phrase 'the author of *Waverley*’ may not be used referentially in the sentences in which it occurs. If it is not so used, then the author of *Waverley* is not a constituent of the propositions expressed by these sentences. That is what he means when he says that the author of *Waverley* does not occur as entity in the proposition that people were surprised that Scott was the author of *Waverley*. The proper analysis of such sentences as 'people were surprised that Scott was the author of *Waverley*’ thus demands a kind of sophistication which is lacking from the *Principles*.

In 'Points about Denoting' Russell writes:

When a denoting phrase occurs in a proposition, does that which is denoted form a constituent of the proposition or not?

Recurring to Smith's wife, let us baptize her Triphena. Then "Triphena is Smith's wife" is a significant proposition, but "Smith's wife is Smith's wife" is a tautology. Thus it would seem that Triphena is not a constituent of the latter, for if she were, there could hardly be any difference of the two propositions. Nonetheless "Smith's wife has blue eyes" is a statement about Triphena. Hence a difficulty.

In this matter, I suggest the following compromise. In a complex, we must distinguish the meaning and denotation. If the meaning is complex, the whole is called a complex, although the denotation may be simple. Constituents of the meaning of a complex may not be constituents of the denotation, and vice versa. Thus in "Smith's wife has blue eyes", I should say that Smith and wife and the meaning (not the denotation) of "Smith's wife" are constituents of the denotation, whereas Triphena herself is a constituent of the denotation.

Through most of his unpublished writings on denoting, Russell maintains a distinction between the meaning of a phrase and its denotation. He says, e.g.,

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1Unpublished, p. 3. (In this paper Russell refers to Combes as the Prime Minister of France, which is an office he held only until 18 January 1905.)
that the phrase 'the centre of mass of the Solar System at the first instant of the twentieth century' is complex in meaning but simple in denotation, since it denotes a point. In terms of this distinction between meaning and denotation, Russell attempts to solve many philosophical problems. E.g., along the lines Frege suggests he attempts to explain how there can be significant statements of contingent identity—that is, like Frege, he holds that two phrases differing in meaning may coincide in denotation.

Also, once he has distinguished meaning from denotation he no longer thinks (as he did in the Principles) that failure of reference suffices to make phrases meaningless, since meaning is separate from denotation. In 'Meinong's Theory of Complexes and Assumptions' he was at a loss to explain the difference between truth and falsehood. Now he writes:

False propositions have only meaning, not denotation. Excellent!

He was always drawn to the view that a true assertion denotes a fact, while a false assertion denotes nothing at all. But so long as he supported the view that nothing lacks a denotation, he was unable to distinguish between true and false assertion as he would have wished to. Let us see now what happens to his theory of truth as he moves in his unpublished writings away from the position of the Principles.

After observing that 'the name ["Apollo"] denotes nothing, since Apollo is a figment', in his unpublished paper 'On the Meaning and Denotation of

\[1\text{Dependent Variables and Denotation', p. 10. (This paper was almost certainly written in early 1905.)}\]

\[2\text{pp. 2-3 of 'On the Meaning and Denotation of Phrases', an unpublished paper written shortly before 'On Denoting'.}\]
...we shall have to say that "the present King of France is bald" is neither true nor false; for truth and falsehood have to do with what a sentence denotes, not with what it means; and we must take it as axiomatic that the subject of a proposition is part of the denotation of the proposition. This may be stated in another way, as follows. If we consider "x is bald", where x is variable, x here must always denote something, if we are to have a proposition at all. Among the values of x for which "x is bald" is a proposition at all, and is not a true proposition, the present King of France is not included. But if "x is bald" is a proposition at all, and is not a true proposition, then "x is not bald" is true. But among the values of x for which this is true, the present King of France is not included. Thus "the present King of France is bald" is neither true nor false. There is a complex concept, which is the meaning of "the present King of France is bald"; and this concept has the form of those that denote propositions. But in the particular case considered, the concept does not denote a proposition.

We may perhaps bring some light to Russell's remarks in this passage by introducing his notion of a propositional function—i.e., a function whose arguments are individuals and whose values are propositions, where propositions are understood as non-linguistic entities of which the corresponding individuals are constituents. Let us consider the propositional function of which 'y = x is bald' is the expression. Substituting a singular term for 'x' into the functional expression 'y = x is bald' should yield a sentence expressing a (perhaps false) proposition which is a value of the function. For example, if we substitute for 'x' the singular term 'Yul Brynner' into 'y = x is bald', the value of this function thus interpreted is the proposition expressed by the sentence 'Yul Brynner is bald'. The value of the function in this case is a true proposition. Had we proceeded in a similar manner but from the singular term 'Tina Turner', the value of the function in this case would (I believe) have been a false proposition. Now, when Russell
wrote the above passage, he was still treating definite descriptions as primitive singular terms. But at the same time he recognizes that the phrase 'the present King of France' does not denote anything. Granted that no individual is assigned to this phrase and that a propositional function is a function from an individual (not a phrase) to a proposition (not a sentence), it follows that 'the present King of France is bald' does not express a proposition. By this same reasoning neither does 'the present King of France is not bald' express a proposition. If these sentences do not express propositions, then of course (on the view here assumed) they are neither true nor false.

The situation as Russell sees it at this time is thus akin to what we often encounter in mathematics. To take a simple case, consider the function of which \( y = \frac{x}{(x - 2)} \) is the expression, and from which we may move from one number (argument) to another (value). We all know in general how to compute the value of this function for a given argument. Its value for the argument 4, e.g., is 2. But there are numbers for which we cannot compute a value, and in these cases mathematicians say that the function is undefined. Since we cannot divide by zero, the function is undefined for the intended argument 2. Now Russell wishes to say that the function of which \( y = x \) is bald' is the expression is undefined in the case of 'the present King of France is bald' because the expression 'the present King of France' does not pick out an argument of the function.

Frege at times suggests that we treat as neither true nor false those sentences which contain non-referring singular terms; fifty years later, Strawson was to repeat the suggestion. In Russell's unpublished notes on Frege (which pre-date the passage on which we are commenting), he complained
that Frege's suggestion violates the law of the excluded middle. Fifty years later, as we saw (p. 213), he was to repeat this complaint against Strawson.

But in 'On the Meaning and Denotation of Phrases', although sceptical of the Frege-Strawson suggestion, his scepticism does not seem to involve any considerations relative to the law of the excluded middle. Following the discussion which issued in the conclusion that 'the present King of France is bald' is neither true nor false because there is no King of France, Russell remarks (p. 6):

Can we extend the above theory to all propositions? Are these all complex concepts which denote nothing? Consider (say) "Shakespeare was blind". Here there is not a failure of denotation in the parts, as in "the author of the Iliad was blind". But it may be said that there is a failure of denotation in the whole; that the phrase should denote Shakespeare's blindness, and that there is no such entity. This is a difficult question; it shall be left open at present. If we decide that in all false propositions there is a failure of denotation, we shall say that truth and falsehood attach to meanings, not denotations.

I think this passage reveals why Russell was to reject the Frege-Strawson line. 'It seems consonant to common sense', he remarks in 'Points about Denoting', 'to hold that a true proposition denotes a fact, while a false one denotes nothing'. (p. 5) Therefore, (reasons Russell) failure of denotation cannot suffice to make an assertion neither true nor false; in fact, he wishes to define falsehood in terms of failure of denotation; but see the cautionary remark on p. 5 of 'Points about Denoting'.

We see that once the ontology of the Principles has been abandoned failure of reference, as in the case

\[1\] I will resist commenting upon Russell's treatment of the Frege-Strawson line except to observe that he is perhaps wrong to treat the denotation of a sentence as being of a piece with the denotation of a term.
of 'the present king of France', becomes a serious problem for Russell.

For, having rejected the Frege-Strawson line that 'the present King of France is bald' is neither true nor false, Russell is now in a difficult position. He has moved far enough away from the ontology of the *Principles* to resist the suggestion that France has a nonexistent being as monarch, but he has not yet found the contextual definition for 'the' in terms of which 'the present King of France' may be eliminated in favor of an uninstan-
tiated predicate. In the unpublished paper 'On Meaning and Denotation' (which was written right after 'Points about Denoting'), Russell observes:

> and denoting must be indefinable. (p. 60)

It is plain that \( \downarrow \) is a fundamental logical notion, and that it would be merely shirking to invent a dodge for getting on without using it. (p. 84)

So long as Russell treats \( \downarrow \) as indefinable, 'the present King of France' will be a primitive name in his system and, as such, must be assigned a denotation; otherwise, 'the present King of France is bald' will be undefined. 'To avoid this awkwardness', he says in 'On Meaning and Denotation' (p. 60), 'a conventional denotation can be assigned when otherwise there would be none'.

But, of course, by the time he was writing 'On Meaning and Denotation' [early 1905] he had to concern himself not only the paradoxes arising out of failure of reference but also with those arising of failure of substitution even when there is an agreed upon reference. Even if, e.g., 5432 = the number of people at the party and the number people at the party was very surprising, it is nevertheless false that 5432 was very surprising. By distinguishing the constituents of the meaning of a phrase from the constituents of its denotation and by saying that a proposition is only about the constituents of its denotation, Russell hopes somehow to resolve the paradoxes a-
rising out of failures of substitution. I do not well understand his discussion of these matters. But I can see that Whitehead was surely right when he denied 'that there is any precision to [Russell's] notion of about', and said that 'the difficulty about "5432 was very great" remains unsolved'.

Russell probably realized that Whitehead's criticisms were just. At any rate, he concludes 'On Meaning and Denotation' with the remark that 'the theory of denoting must be reformed'. (p. 95) On 7 June 1905 Russell began a paper called 'On Fundamentals', in which he undertook the reformation of his theory of denoting. Half-way through this paper, he will discover the theory of descriptions.

On p. 12 of 'On Fundamentals' Russell says that 'every complex has meaning and being' (denotation). But on p. 25 his commonsense asserts itself, and he says that it is convenient to assign a conventional denotation to otherwise empty complexes (expressions); such complexes, he says, may be taken to denote themselves. But on p. 58 he concludes his discussion with the remark:

Observe that conventional denotations have now disappeared. This diminishes the paradox and arbitrariness of our system.

It remains for us now to see what has happened between pages 12 and 58.

On p. 35 Russell writes:

The use of inverted commas may be explained as follows. When a concept has meaning and denotation, if we wish to say anything about the meaning, we must put it in an entity-position [i.e., referential-position]; but if we put it itself in an entity-position, we shall be really speaking about the denotation, not the meaning, for that is always the case when a denoting complex is put in any entity-position. Thus in order to speak about the mean-

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1Russell records Whitehead's criticisms on p. 94 of 'On Meaning and Denotation'.

ing, we must substitute for the meaning something which
denotes the meaning. Hence the meanings of denoting com-
plexes can only be approached by means of complexes which
denotes those meanings. This is what complexes in in-
verted commas are. If we say ""any man" is a denoting
complex", "any man" stands for 'the meaning of the com-
plex "any man",' which is a denoting concept. But this
is circular; for we use "any man" in explaining "any
man". And the circle is unavoidable. For if we say
"the meaning of any man", that will stand for the mean-
ing the denotation of any man, which is not what we want.

In order for Russell to clarify his distinction between meaning and denota-
tion, it is necessary for him to talk about the meaning of a complex in con-
tradistinction from its denotation. He believes that we talk about something
by using a term which denotes it, and therefore that to talk about the mean-
ing of 'any man' we must use a term whose denotation is the meaning of 'any
man'. But for some reason which I do not well understand he thinks that we
cannot find a term to denote the meaning of 'any man'. At any rate, he con-
tinues (p. 36):

The endeavour to speak about the meanings of denoting
complexes leads, if the above is correct, to the follow-
ing dilemma. If we do not put the meaning in an entity-
position, we merely mean it, and do not say anything
about it; if, on the contrary, we put it in any entity-
position, it stands for its denotation, and we get the
meaning (if any) of what the complex denotes, not of what
the complex means. The phrase "the meaning of a denot-
ing complex" is wrongly formed; for suppose C is a de-
noting complex; then "the meaning of C" puts C in an en-
tity-position, and therefore means "the meaning of the
denotation of C", whereas what we want is the meaning
of the meaning of C, as opposed to the meaning of the
denotation of C and the denotation of the meaning of C.
When we distinguish meaning and denotation, in fact, we
must be dealing with the meaning; for the meaning has
denotation and is a complex, and there is not something
other than the meaning, which can be called the complex
and be said to have both meaning and denotation. The
right phrase is that some meanings have denotations.
But this only makes our difficulty in speaking of mean-
ings more evident. For suppose C is our complex; then
we say C is the meaning of the complex. Nevertheless,
in all ordinary propositions in which C occurs, what is
said does not hold of C, but of what C denotes. To speak of C itself requires either a concept which denotes C, or else some further kind of occurrence, over and above those enumerated in 23. And a concept which denotes C must not contain C as entity (as is the case, e.g., with "the meaning of C"), for then we get the denotation of C occurring where we meant to have the meaning.

The reasoning in this passage is incoherent, I think because Russell falsely believes that an expression in quotation is somehow used referentially. Be that as it may, Russell continues (p. 37):

For the relations of meaning and denotation, it is instructive to observe the following pair of facts:
(1) If C is a denoting complex, "the meaning of C" does not denote the meaning of C, but the meaning of the denotation of C.
(2) If C is a denoting complex, "the denotation of C" does not mean the denotation of C, but "the denotation of C".

These two facts show the indissolubility of meaning and denotation, and the impossibility of inventing a symbolism which will avoid the necessity of distinguishing the two sides in complexes. For "the meaning of C" and "the denotation of C" both have the two sides, and are therefore in no way less two-fold than "C" itself.

By writing this nonsense Russell has persuaded himself of 'the indissolubility of meaning and denotation', and therefore can no longer avail himself of that distinction in attempting to resolve such puzzles as the one about George IV wishing to know whether Scott is the author of Waverley. In the passage which follows he attempts first to get around the imaginary difficulties over meaning and denotation, and then to set out anew on the George IV puzzle; he writes (p. 38):

It might be supposed that the whole matter could be simplified by introducing a relation of denoting: instead of all the complications about "C" and C, we might try to put "x denotes y". But we want to be able to speak

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[1][In 23 Russell gives what he takes to be the six exhaustive kinds of occurrence for terms in propositions.]
of what $x$ denotes, and unfortunately "what $x$ denotes" is a denoting complex. We might avoid this as follows: Let $C$ be an unambiguously denoting complex (we may now drop the inverted commas); then we have

$$(\exists y) : C \text{ denotes } y : C \text{ denotes } z . \ \exists z . y = z$$

Then what is commonly expressed by $F(C)$ will be replaced by

$$(\exists y) : C \text{ denotes } y : C \text{ denotes } z . \exists z . y = z : Fy$$

Thus e.g. $F(\text{the author of } \textit{Waverley})$ becomes

$$(\exists y) : \text{"the author of } \textit{Waverley} \text{" denotes } y : \text{"the author of } \textit{Waverley} \text{" denotes } z . \exists z . y = z : \text{Scott } = y.$$ This, then, was what surprised people, as well it might. On this view, we shall not introduce $\exists u$ at all, but put

$$F_\exists u . = : (\exists y) : y \in u . \exists z . y = z : Fy.$$ This defines all propositions about $\exists u$, which is all we need. ...

On this view, "the author of $\textit{Waverley}$" has no significance at all by itself, but propositions in which it occurs have significance. Thus in regard to denoting phrases of this sort, the question of meaning and denotation ceases to exist.

Of course, these definitions are not quite what is in Principia, but it is clear that Russell has achieved the insight he needs to construct the theory of descriptions as it occurs in Principia.

Let us pause here briefly to review Russell's ontological development. At the time he wrote the Principles, though he says (pp. 73-4) that some denoting phrases do not denote anything, he seems really to assume that every such phrase, wherever it occurs, denotes a constituent of the proposition expressed by the sentence in which it occurs. But then, because on this view 'Scott' and 'the author of $\textit{Waverley}$' name the same propositional constituent, he was at a loss to see any difference in the propositions expressed by the sentences 'George IV wished to know whether Scott was the author

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1Cf., Principia *14.
of *Waverley* and 'George IV wished to know whether Scott was Scott'. By making a Frege-like distinction between meaning and denotation, he attempts to explain the evident difference between these propositions. Whitehead, however, complains that his distinction is not clearly drawn, whereupon Russell re-examines it and illogically concludes, where denoting phrases are concerned, no such distinction can be made at all. He then seeks an analysis of the proposition that George IV wished to know whether Scott is the author of *Waverley* such that the author of *Waverley* does not appear as a constituent. He finds it. But the analysis, as it turns out, is perfectly general and eliminates the author of *Waverley* as a constituent of any the propositions expressed by sentences in which 'the author of *Waverley*'. This entitles Russell to say that 'the author of *Waverley* is never used referentially and therefore need not be assigned a denotation. Having abandoned the naive belief that every grammatically singular expression names a constituent of the propositions expressed by the sentences in which it occurs, Russell is in a position now to reduce his ontological commitment. And he quickly does so. But something of the old outlook remains when he says (p. 39):

The above theory leads to the result that all denoting functions are meaningless in themselves, and are only significant when they occur as constituents of propositions. Hence all complexes become undenoting.

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1The thrust of the theory of descriptions is that descriptions, unlike genuine names, do not designate propositional constituents. On pp. 1-2 of *On Meaning and Denotation* Russell expressly commits himself to the view that descriptions and names apply to objects in essentially the same way. Talking about 'Arthur Balfour' and 'the present Prime Minister of England', e.g., he says (p. 2): 'Considered as names, the two phrases are on a par: both designate a certain man'. It was doubtless this kind of remark which led Whitehead to deny 'that denoting phrases are names in the same sense as proper names.' (p. 93)
In the Principles Russell had said that \((\exists x)Fx\) must denote something because otherwise it would be meaningless. Now, he says that it denotes nothing, and is therefore meaningless. "A complex which has meaning by itself", he says (p. 73) "is always propositional". With the theory of descriptions, Russell is able to confer a meaning upon every proposition in which \((\exists x)Fx\) occurs.

Let me now cite an unpublished letter from Russell to Jourdain dated 13 January 1906:

The theory of non-entities is important, and I believe my new theory of denoting solves all the puzzles completely as follows: Given a proposition containing a denoting phrase "the so and so", it is a mistake to suppose that this phrase stands for an entity, which can be regarded as the subject of the proposition. Let \((\forall x)Fx\) stand for "the x which has the property Fx"; then if Gx is any property, \(G[(\forall x)(Fx)]\) is one of the values of Gx, but stands for

\[(y)b:Fx = x, x = b: Gb.\]

Thus \((\exists x)Fx\) by itself has no meaning; but any proposition in which it occurs has meaning. Thus \((\exists x)Fx\) is first introduced by

\(G[(\exists x)(Fx)] = \text{df} (y)b:Fx = x, x = b: Gb.\)

We put

\(E[(\exists x)(Fx)] = \text{df} (y)b:Fx = x, x = b.\)

If this condition is not fulfilled, we say that \((\exists x)Fx\) is a non-entity; but there is not something which is a non-entity, there is merely a phrase which fails to describe anything.

Note that \(E:x\) is meaningless. Note also that

\(E[(\exists x)(Fx)] = E(\exists x)(Fx) = (\exists x)(Fx).\)

If \(u\) is a class, we write \(\forall' u\) for \((\exists x)(x \in u)\), that is \(G(\forall' u) = \text{df} (y)b: x \in u = x, x = b: Gb.\)

The above is the sum and substance of the enclosed article on Denoting.

Given his contextual definition of \((\exists x)Fx\), Russell is able to explain the sense of 'the present King of France does not exist'. In an unpublished letter to Jourdain dated 15 March 1906 Russell writes,
[In 1904] I tried to do without 1 as an indefinable, but failed; my success later, in the article "On Denoting", was the source of all my subsequent progress.

Neither of Russell's predecessors, Frege and Peano, could satisfactorily explain the sense of 'the present King of France does not exist'. For them '(\forall x)Fx' is a primitive singular term; and, as we have seen, quantification theory in its classical formulation does not permit the use of empty singular terms. In the Grundgesetze Frege gives a conventional denotation to '(\forall x)Fx' when it otherwise would have none. Concerning this suggestion Russell writes in 'On Denoting' that 1

this procedure, though it may not lead to actual logical error, is plainly artificial, and does not give an exact analysis of the matter.

In an unsigned review of MacColl, Russell writes: 2

... Mr. MacColl seems somewhat under the tyranny of language in regard to unrealities. For example, he would say that "the present King of Switzerland" is the name of another unreality. Thus all republics have kings, who only differ from the kings of monachies by being unreal. It seems more natural to suppose that "the present King of France" is not the name of anything at all, and that there are no unrealities, since what makes things unreal is the fact that there are no such things.

It is the theory of descriptions which permits Russell to make these thoroughly reasonable remarks.

I conclude this section with the following observation. 'On Denoting' is a fourteen page paper, comparable in importance and originality I should think to Descartes's Meditations. It puts forth a certain theory, briefly and perhaps rather dogmatically. Before the paper was written, however, Rus-

1Essays in Analysis, p. 102.

2The Athenaeum, Number 4092, 31 March 1906, p. 396.
sell considered a wide variety of proposals, perhaps the full range of possibilities so far as his problems were concerned; his surviving notes on denoting cover three hundred closely reasoned pages. The sheer effort and intelligence that went into Russell's five years of work on denoting are not always appreciated. Speaking of Russell and Quine on ontology, G. J. Warnock, *e.g.*, says:¹

Logicians are apt to believe that they are exempt from the unhygienic, untidy pre-occupations with which the rest of us are philosophically bedevilled; therefore, unfortunately, they engage in their metaphysics with a hasty, unquestioning dogmatism. ... And thus there has occurred a sad waste of time and of effort.

To Quine, Russell wrote on 6 June 1935 as follows:

In reading you I was struck by the fact that, in my work, I was always being influenced by extraneous philosophical considerations. Take, *e.g.* descriptions. I was interested in "Scott is the author of Waverley", and not only in the descriptive functions of *Principia Mathematica*. If you look up Meinong's work, you will see the sort of fallacies I wanted to avoid; the same applies to the ontological argument.

After dealing with one more point of historical interest (Russell's theory of truth), we will see how his logical analysis may be used to resolve philosophical problems associated with the concept of existence.

6.4 Russell on Truth and Falsehood: A Note

In 'Meinong's Theory of Complexes and Assumptions' Russell writes:²

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¹'Metaphysics in Logic', *Proc. Ar. Soc.*, 1950-1, pp. 221-2. (I cite this passage because it is from a paper to which Russell in his old age took particular offense; so offended in fact was he that he wrote Quine to complain of 'this man who calls himself Warnock'. But I cite the passage more as a sign of the times than of the man who wrote it. In fairness to Warnock, I must mention that, when the paper was reprinted in Flew's *Essays in Conceptual Analysis*, Warnock tried to lessen its 'rather disagreeable tone'.)

²*Essays in Analysis*, p. 38.
What do we believe when we believe a false proposition? We believe in a relation (say) between two terms which, as a matter of fact, are not so related. Thus we seem to believe in nothing; for if there were such a relation as we believe in, the belief would not be erroneous. If a belief may be a content which has no object, then it may be true that, though we believe, there is nothing we believe in; and in this case correct beliefs would be distinguished from erroneous ones by the fact that they have an object, while the others have not. But this possibility seems too paradoxical to be maintained.

As we saw (p. 273), when Russell hit upon the distinction between meaning and denotation, he thought that he had found a neat way out of the problems associated with falsehood, and that way out was to say that false propositions have meaning but lack denotation. But, as we saw, he quickly came to deny the validity of the meaning/denotation distinction. What then, we may ask, became of his theory of truth once this distinction was abandoned?

The answer to this question is very interesting. His papers 'On the Meaning and Denotation of Phrases' and 'Points about Denoting' were written before 18 January 1905. In these papers, having distinguished meaning and denotation, Russell no longer maintains the view that failure of denotation suffices to turn discourse into nonsense, and therefore seeks an analysis of 'the present king of France is bald' which will at once confer a truth value upon this sentence and not treat the present king of France as an entity. But in these papers he does not find the requisite analysis, and at the beginning of 'On Fundamentals' returns to the assumption 'that every complex has being'. (p. 12) For some reason—perhaps it was the collapse of the meaning/denotation distinction—before Russell found the theory of descriptions, he set aside the advances of the early 1905 papers on denoting, and returned in desperation to the ontology of the Principles. In an unpublished paper on truth dated June 1905, he writes (p. 7a):
The things which are called facts or true propositions are among those that do not exist. It is partly on this account, we may presume, that they have so long failed to be recognized. That what does not exist is nothing, is a view which has been shared by empiricists and idealists alike. But whereas with empiricists it is an essential part of their creed, with idealists it is more of the nature of a concession. Its psychological source is plainly the absorption in what is of practical importance; for what does not exist has no effects, and is therefore at once useless and harmless. The view that whatever we can think about must exist has certainly obscured the distinction between states of mind and their objects; for their objects often do not exist, and are hence supposed to be not different from the states of mind themselves. But it is easy to see that there must be entities which do not exist: existence itself, for example. And the things which are called facts, such as "that Caesar crossed the Rubicon": where and when do these exist? Or again, it is a fact that Caesar existed; but where and when did "Caesar's existence" exist? It is necessary to the view in question to maintain that the assertion of existence is analytic, i.e. that it is self-contradictory to deny the existence of anything. Yet those who hold this view themselves deny the existence of many things, for instance space and time. This requires, on their view, that space and time should be meaningless words; for if they had a meaning, what they mean would have to exist. But if they are meaningless words, the denial that space and time exist is a meaningless noise, and is therefore not worth making unless on the ground of its musical beauty. Again, non-existent things can be counted, for instance there are twelve of Kant's categories, yet none of them exist; but what can be counted must be something. For all these reasons, we must admit that there are entities which do not exist; and among these must be the entities which are true or false, which are what I call propositions.

This passage was certainly written before the discovery of the theory of descriptions. I suspect that it was written after the collapse of the meaning/denotation distinction, which had seemed, in a new way, to explain falsehood. Without that distinction, Russell was unable any longer to explain falsehood as a meaningful failure of denotation. But whatever the explanation for this Meinongian outburst, it is an extraordinary fact that in
June of 1905 Russell was writing in this way. 'On Denoting' was first published in *Mind* in October of 1905, and we know from Russell's correspondence that this article was itself written in June of 1905.

What became of Russell's theory of truth once he had the theory of descriptions? Oddly enough, very little changed; in 1906 we find him writing in this way:¹

I conceive, then, that the world consists of many things, any two of which have certain relations and do not have certain others. That they have any of the relations they do have, or do not have any of the relations they do not have, are facts; that they have any of the relations they do not have, or do not have any of the relations they do have, are the opposite of facts, which we may call fictions. Facts are true, and fictions false, quite independently of anyone's ever knowing them or thinking about them. Neither the one nor the other is mental; they are objects of beliefs and disbeliefs, but the objects of which are before the mind are not themselves mental, except in the case of introspection. When we believe a fact, we believe correctly; when we believe a fiction, we believe erroneously.

It may be objected to the above theory that, though objective facts perhaps might be tolerated, objective fictions must be fictions, and therefore there cannot be such things. I am not prepared to say that this objection is not sound; whether there are objective fictions seems to me doubtful. It is not, however, essential to admit the objectivity of fictions; by a suitable theory of belief, the objectivity of facts can be made to suffice.

After writing this, Russell presents a theory of belief in which the objectivity of fictions is denied, and contrasts that theory with its alternative, as follows:²

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¹ The Nature of Truth*, p. 24. (This unpublished paper may be dated by its reference to a paper by Schiller, which appeared in *Mind* in 1906.)

If we accept the view that there are objective falsehoods, we shall oppose them to facts, and make truth the quality of facts, falsehood the quality of their opposites, which we may call fictions. Then facts and fictions together may be called propositions. A belief always has a proposition for its object, and is knowledge when its object is true, error when its object is false. Truth and falsehood, in this view, are ultimate, and no account can be given of what makes a proposition true or false.

If we reject objective falsehood we have, apart from belief, only facts. Beliefs are then complexes of ideas, to which complexes of the objects of the ideas may or may not correspond. When they do correspond, the beliefs are true, and are beliefs in facts; when they do not, the beliefs are erroneous, and are beliefs in nothing.

'As between the above two views of truth', Russell says, 'I do not at present see how to decide'. 1 Given the direction of his thought, it is completely obvious to us which alternative Russell should have opted for, as indeed it was obvious to Whitehead at the time. In 1906 Whitehead, puzzled by Russell's talk of objective fictions, wrote him in an unpublished letter:

False propositions are a great difficulty to me. You say—and this seems right—there is only the fact that Caesar is dead, and there is not in addition the truth of the proposition "Caesar is dead", or the true proposition "Caesar is dead"—But then what the devil is there in respect to "Caesar is not dead"? According to this view negation seems to spring from a sort of class of "anti-facts", which I can only get hold of by the unsatisfactory analogy of disembodied spirits. This seems to me to express the whole strength of the case for propositions as entities: the false proposition is then the required anti-fact. It seems to me that for the present "Caesar is not dead" must take the place in your mind which was previously occupied by "the King of France is bald".

However, it was not until 1910 in Philosophical Essays (New York: 1966), pp. 147-59, that Russell offered an analysis of falsehood which was con-

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1 'On the Nature of Truth', p. 49.
sonant with his general ontological outlook. Why? I think this passage reveals the answer:

It is very important to realize ... that propositions are not names for facts. It is quite obvious as soon as it is pointed out to you, but as a matter of fact I never had realized it until it was pointed out to me by a former pupil of mine, Wittgenstein. It is perfectly evident as soon as you think of it, that a proposition is not a name for a fact, from the mere circumstance that there are two propositions corresponding to each fact. Suppose it is a fact that Socrates is dead. You have two propositions: "Socrates is dead" and "Socrates is not dead".

So long as Russell thought of propositions as mere names, he would be inclined to ignore their internal structure. Moreover, as a name even a false proposition must name something--i.e., an objective fiction.

Once he realizes the importance of the internal structure of propositions, he writes:

The difficulty of the view we have been hitherto considering was that it compelled us either to admit objective falsehoods, or to admit that when we judge falsely there is nothing that we are judging. The way out of the difficulty consists in maintaining that, whether we judge truly or whether we judge falsely, there is no one thing that we are judging. When we judge that Charles I died on the scaffold, we have before us, not one object, but several objects, namely, Charles I and dying and the scaffold. Similarly, when we judge that Charles I died in his bed, we have before us the objects Charles I, dying, and his bed. These objects are not fictions: they are just as good as the objects of the true judgment. We

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2[Though Russell refers to him occasionally in his early writings, I have been unable to determine who this man Wittgenstein was; I presume he was an obscure figure from whom nothing was subsequently heard.]

therefore escape the necessity of admitting objective falsehoods, or of admitting that in judging falsely we have nothing before the mind.  

There is a certain intuitive appeal to what Russell is saying here. But notice that, on his principles, it cannot be literally correct. For on his principles any proposition we can even consider must be composed of constituents 'with which we have immediate acquaintance'. Therefore, since Charles I and his bed are beyond our immediate acquaintance, we can form no judgments of which they are constituents. Russell, of course, recognizes this point. Usually, when he gives an example of a singular judgment, he adds in a footnote that it isn't really a singular judgment at all because its apparent subject term isn't a genuine proper name but is a disguised description—and, of course, descriptions do not name propositional constituents. Only genuine proper names, he says, name things with which we have immediate acquaintance. Therefore, they alone are capable of picking out subjects for singular predication. Proper names are thus very important for Russell. Yet concerning them he says some curious things. E.g., in A History of Western Philosophy (New York: 1960), Russell implies that as the memories of Washington faded the term 'George Washington' gradually ceased to be used as a proper name. One can understand why Russell wrote as he did about proper names. But that nevertheless does not make what he wrote

1[Observe that Russell's account of truth and falsehood is essentially that of Plato as we presented it in section 1.5.]

2'On Denoting', Essays in Analysis, p. 119.

3See, e.g., 'The Philosophy of Logical Atomism', Marsh, p. 182n.
any more plausible than it is; and it must be confessed that it is not very plausible.

6.5 Russell and Frege on Proper Names and Existence

Singular propositions, which had been the bane of the idealists, emerge in Russell's logical atomism as propositional paradigms. Proper names are the subject terms of irreducible singular propositions, and therefore a matter of importance to Russell.

As we have seen (pp. 283-4 above), Russell so analyses 'the round square does not exist' that its 'grammatical subject has disappeared'. This amounts to saying that, in the sentence 'the round square does not exist', the expression 'the round square' does not function as an irreducible subject-term.

By providing an analysis of one sort of apparently singular propositions, Russell makes Frege's account of 'exists' more comprehensive than it is in Frege himself. (see section 5.6) The question we must ask is this: can Russell somehow extend his analysis to show that \( \forall \) in \( \forall \text{ exists} \) is not an irreducible subject-term?

Prima facie, it does not seem that Russell's account of descriptions can be extended to cover statements of existence involving proper names, such as 'Apollo'; for he assumes that every proper name has a denotation. But let us see what he has to say on the topic. In his unpublished paper 'On the Meaning and Denotation of Phrases', he writes (pp. 2-4):

> Consider, e.g.

> "Apollo comes leading  
> His choir, the nine;  
> The leader is fairest,  
> But all are divine".

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We decided that proper names—of which Apollo appears to be one—have only denotation, not meaning; but in the present case, the name denotes nothing, since Apollo is a figment. It would seem to result that any phrase in which his name occurs must denote nothing; also, if Apollo neither denotes nor means, it becomes a meaningless noise; it would be better to say:

"John Jenkins comes leading
His choir, the nine"

for then, at least, we should not be talking nonsense.

There is, however, plainly a proper and an improper use of the word Apollo, from which it follows that, since nothing is denoted by it, something must be meant. This is, in fact, a general principle with imaginary persons or events; they have not, like actual ones, a definition as just this, but they are described by means of a collection of characteristics, of the combination of which they are conceived to be the only instance. Thus when we look up Apollo (if we ever do) in a classical dictionary, we find a description which is really a definition; but when we look up (say) Aeschylus, we find a number of statements of which no single one is merely definition, for Aeschylus was who he was, and every statement about him is not tautologous. Thus Apollo is not a proper name like Aeschylus; and even genuine proper names, when they belong to interesting people, tend to become names which have meaning. If we ask: "Was there such a person as Homer?", the meaning of the word Homer is fixed, and the question is: "Does this meaning denote anything?" Thus imaginary proper names are really substitutes for descriptions.

Thus, Russell's account of 'exists' purports to be applicable to definite descriptions, the names of imaginary people, and 'even genuine proper names, when they belong to interesting people'. But there are uninteresting people of whose existence we are often aware.

This passage was written just when Russell was about to discover the theory of descriptions, and at this point he had a choice which after a preliminary remark I will explain.

Russell follows Frege in holding (1) that genuine proper names are irreducible subject terms, and (2) that every existential claim, properly ana-
lysed, manifests itself as a claim about the extension of some predicate. Russell explains existential propositions involving definite descriptions and the names of imaginary people by eliminating these expressions in favor of predicates—i.e., he does not treat these expressions as irreducible subject terms.

Russell's choice, therefore, comes to this: ¹ he can either admit that Frege's account of 'exists' is not comprehensive, since it is inapplicable to propositions involving proper names, or else he can exclude proper names altogether. If he makes the first move, he will say (as Frege does by implication; see p. 227 above) that 'Julius Caesar does not exist' meaningless. If he makes the second move, he will say that 'Julius Caesar' is not a genuine proper name because it is meaningful to say 'Julius Caesar does not exist'.

We all know the direction in which Russell was to move. In the *Principles of Mathematics* [1903] he says (p. 44): 'Here proper names are to be understood in a somewhat wider sense than is usual'. In 'On the Meaning and Denotation of Phrase' [1905] he excluded the names of imaginary persons from the category of proper names. In 'Knowledge by Acquaintance' [1909], he said that 'only two words ... are strictly proper names of particulars, namely "I" and "this".² But, when he wrote *The Problems of Philosophy* later in 1909,

¹I do not mean to suggest that Russell ever formulated matters clearly enough to make an explicit choice between the alternatives I am about to give. But looking back on matters we can see more clearly than he at the time what he was doing. Excusing the lack of clarity in his early expositions of the theory of descriptions, Russell himself writes to Ronald Jager in 1960: 'People who invent new theories seldom get them clear at first; Leibniz's first expositions of the calculus are incredibly muddled'.

he became sceptical of the substantial self; see ch V. And, when he reprinted "Knowledge by Acquaintance" [1917], he added the following footnote to p. 216: 'I should now exclude "I" from proper names in the strict sense, and retain only "this". Finally, in An Outline of Philosophy (New York: 1963), p. 267, he wrote [1927]:

In an ideal logical language, there will be words of different kinds. First, proper names. Of these, however, there are no examples in actual languages. The words which are called proper names describe collections, which are always defined by some characteristic; thus assertions about "Peter" are really about everything that is "peterish".

Bradley had said that sentences apparently about John are really about anything which has the properties by which we identify him, and that reference to particulars is impossible. "When asked what is ultimate, and can stand as individual", he wrote,¹ 'you can answer nothing'. It is to be observed that in 1927 Russell commits himself to the view that there are no examples in natural languages of sentences expressing singular propositions. He has therefore conceded to Bradley that we cannot refer to the individual bit of the world which is Peter; our knowledge of Peter is therefore general, as Bradley believed. At the time he wrote the Principles, and was first rebelling against idealism, he held that denoting phrases were the chief devices by which we refer to individual bits of the world. After the theory of descriptions this role fell upon proper names. Now he says that there are no proper names in natural languages.

For Russell's final views on proper names [1948], I refer the reader to his extremely able discussion in Human Knowledge (New York: 1962), pp. 72-84 and 292-308. We will, however, take Russell's view of proper names

to be that which he expresses in 'The Philosophy of Logical Atomism', where, having said that 'Socrates' is not a name, he goes on to observe:¹

The only words one does use names in the logical sense are words like "this" or "that".

Russell's discussion in 'The Philosophy of Logical Atomism' is, of course, the one to which his critics most often refer in objecting to his treatment of names. Referring to this discussion, the grammarian Sir Alan Gardiner, e.g., says:²

Whilst discussing the name Socrates, I cannot refrain from astonishment that Russell should have chosen as his example of what is not a proper name the very word taken by Dionysius Thrax to illustrate his definition.³

But one feels in reading Sir Alan that, however justified his criticism of Russell from a purely grammatical point of view, he is not cognizant of the philosophical problems attending the analysis of proper names in existential claims. Our task shall be to modify Russell's extreme pronouncements upon proper names so as to bring them into greater harmony with what ordinary grammarians such as Sir Alan wish to say about such matters. But we must do this with a view to preserving Russell's insights into the nature of existential claims. Admittedly, he went wrong in his theory of proper names, but

¹As reprinted in Marsh, p. 201.
²The Theory of Proper Names, p. 64.
³On p. 5 of The Theory of Proper Names Sir Alan quotes this second century B.C. grammarian, Dionysius Thrax, as follows: 'A noun or name is a declinable part of speech signifying a body or an activity, a body like "stone" and an activity like "education", and may be used both commonly and individually; commonly like "man", "horse" and individually like "Socrates".' Incidentally, Sir Alan says (p. 61) that Russell, being a mathematician, was naturally obsessed with verbal symbolization and, not seeing that 'the function of Language is purely instrumental', was led to deny that 'Socrates' is a name.
from his unpublished writings we will learn how the theory is to be corrected.

To avoid the anomalies which arise out of treating 'exists' as a predicate of individuals, Russell held that, if \( \mathbf{v} \) is a genuine singular term (proper name), then \( \mathbf{v} \text{ exists} \) is meaningless. By this criterion, he thought that only 'this' and 'that' could be genuine singular terms. But to this view Moore soundly objected:

I cannot help thinking that in the case of anything to point at which and say "this is a tame tiger" is significant, it is also significant to point at it and say "This exists", in some sense or other. My reason for thinking this is that it seems to be that you can clearly say with truth of any such object "This might not have existed", "it is logically possible that this should not have existed"; and I do not see how it is possible that "this might not have existed" should be true unless "This does in fact exist" is also true, and therefore the words "This exists" significant.

In his unpublished 1913 book on epistemology, Russell expressed himself in a way which is immune to the Moore objection, as follows (p. 264):

Of an actually given this, an object of acquaintance, it is meaningless to say that it "exists". But the very same word which, at one moment, is used as a true proper name for a given object, may be used the next moment as a description. We may say "this exists", meaning "the object of my present attention exists", or "the object I am pointing to exists". Here the word "this" has ceased to function as a proper name, and has become a descriptive word, in which an object is described by its properties, and the question may be raised whether there is such an object, since descriptions to which nothing corresponds can be made up.

From the fact that it is not meaningless to say 'Socrates does not exist', Russell inferred in his published work that 'Socrates' cannot be a genuine singular term. However, in his unpublished writings, he considered 'Socrates' as a genuine singular term.

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proper name. But we see now that his analysis really commits him only to the thesis that in the sentence 'Socrates does not exist' the expression 'Socrates' does not function as a proper name. It does not commit him to the thesis that in no other sentence does this expression function as a proper name. This greatly diminishes the arbitrariness of his analysis of proper names.

Let us conclude this section with some brief remarks concerning the evolution of Russell's thought on the question of the status of 'exists' as a predicate of individuals. We will find that his unpublished writings again help to illuminate a difficult point in the published record of his philosophy.

Russell, no less than Frege, is committed to the thesis that 'exists' is not predicable of individuals, and by the time he wrote Principia (1910) he is clearly aware of this. Let us go back to July, 1905. 'On Denoting' has already been written, and in four months it will appear in Mind. Yet we find Russell at this time writing in reply to MacColl as follows:

The first point in regard to which clearness is essential concerns the meaning of the word "existence". There are two meanings of this word, as distinct as stocks in a flower-garden and stocks on the Stock Exchange, which yet are continually being confused or at least supposed somehow connected. ...

(a) The meaning of existence which occurs in philosophy and in daily life is the meaning which can be predicated of an individual: the meaning in which we inquire whether God exists, in which we affirm that Socrates existed, and deny that Hamlet existed. ...

(b) The sense in which existence is used in symbolic logic is a definable and purely technical sense, namely

this: To say that A exists means that A is a class which has at least one member. Thus whatever is not a class (e.g. Socrates) does not exist in this sense; and among classes there is just one which does not exist, namely the class having no members, which is called the null class.

Mr Lackey, who edits a fine collection of Russell's papers in which the above passage is included, writes as though there were no conflict between what is said above and what Russell will say a few years later in Principia and 'The Philosophy of Logical Atomism'. He says, 'In the 1905 papers, individuals cannot be said to exist'. The most that can charitably be said for this interpretation of Russell's 1905 papers, however, is that it is mistaken. 'It is clear from the text [of 'The Existential Import of Propositions'], Mr Lackey says, 'that Russell believed that the logician's sort of existence was the true philosophical sort'. Here is the text:

Of these meanings only one occurs in philosophy or in common parlance, and only the other occurs in mathematics or in symbolic logic.

I should explain the conflict between 'The Existential Import of Propositions' and Russell's later work in the following way. In 'On Fundamentals', the unpublished paper from which 'On Denoting' was taken, there is no mention of the key definition of '∃(x)Fx' as '∃(x)Fx. ∃x x = c'. I believe that at the time Russell wrote 'On Denoting' he had not yet found that key definition, and so had not yet realized the full consequences of the theory of de-

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2 Ibid., p. 29.
3 Essays in Analysis, p. 98.
scriptions. But he was so delighted with what he had found—as well he might be, after years of fruitless effort—that in his haste to make his discoveries known, he published prematurely. This explains the obscurity of 'On Denoting'.

In an unpublished letter to Jourdain dated 13 January 1906, Russell writes:

\begin{quote}
I would publish my views as I get them, if they were not so liable to change and so full of errors which I keep on discovering. But I don't like publishing things which I see to be wrong before they are in print.
\end{quote}

This 1906 letter, which contains the key definitions and some theorems for the theory of descriptions, also includes the remark, 'Note that Ex is meaningless'. Therefore, when Russell speaks of what he sees to be wrong in his work before it is in print, he may be referring to 'The Existential Import of Propositions'. In an unpublished letter to Jourdain dated 1 June 1909 Russell writes:

\begin{quote}
My paper on the Existential Import of Propositions ought to have mentioned the existence of described individuals. You know that my paper "On Denoting" is summarized in the following definition (where $(\exists x)(Fx)$ means 'the $x$ which satisfies $Fx$'):

\[ Q[(\exists x)(Fx)] =: (\exists c):Fx \cdot \exists x \cdot x = c \cdot Gx \] 

Then I further define

\[ E(\exists x)(Fx) =: (\exists c):Fx = x \cdot \exists x \cdot x = c \] 

This $E$ gives the "existence" of a described individual. It is the condition of there being any true proposition at all in which $(\exists x)(Fx)$ appears grammatically as subject. 
\end{quote}

With this quotation, we end the purely historical portion of this chapter.

6.6 Quine As everyone knows, in Quine's view names are to be eliminated in favor of definite descriptions. There is at least a prima facie problem for Quine in selecting a correct description by which to replace a given singular term. Descriptions are of course to be eliminated in favor

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1The moral of this is that philosophers who wish to understand Russell's theory of descriptions should read Principia, not 'On Denoting'; or both.
of predicates having (at most) unique application. Therefore, because predic­
cates have senses, in equating a given singular term with an eliminable de­
scription, we are conferring a sense upon it. In From a Logical Point of

View (New York: 1963), pp. 7-8, Quine attempts to dodge the problem of

finding a sense for 'Pegasus' by appealing directly 'to the ex hypothesi un­
analyzable, irreducible attribute of being Pegasus'. An appeal to unanalyz­

able attributes is plainly unsatisfactory, however, because there are no

such attributes. A An attribute which is primitive in one system will be de­

rivative in another. It is largely a matter of choice which of our general
terms are left unanalyzed (undefined), and which are analyzed (defined) in
terms of the others. General terms, whether defined or not, have senses;

and that is what primarily distinguishes them from names.

In Word and Object Quine offers his most compelling defense of the thesis

that all singular terms are eliminable. 'To helpfully narrow our problem',

he argues as follows (pp. 176-7):

Think of "a" as a singular term, and "...a..." as any

sentence containing "a" in purely referential position.

By the substitutivity of identity, since the position

is purely referential,

(1) \( \forall x (if \ x = a \ and \ ...x... \ then \ ...a...) \). I shall suppose "x" foreign to the sentence represented

by "...a...", (Otherwise take another letter.) But then

(1) is equivalent, by the elementary logic of quantifica­
tion, to:

(2) If \( \exists x (x = a \ and \ ...x...) \) then ...a...

Conversely, moreover,

(3) If ...a... then \( \exists x (x = a \ and \ ...a...) \);

for, if ...a... then a = a and ...a... . Now (2) and (3)
combine to show that "...a..." is equivalent to "(\exists x)(x

= a and ...x...)", which contains "a" only in the position

"= a".

1Or if there are, the attribute being Pegasus is not amongst them. For

a considerable defense of such attributes has been offered only in the case

of those learnt ostensively, whereas the attribute being Pegasus surely is

uninstantiated. (I owe this point to Jonathan Bennett.)
Having offered this argument, Quine goes on to observe:

Now an interesting thing about our being able to manoeuvre those singular terms into a standard position "= a" is that "= a" taken as a whole is in effect a predicate, or general term; and general terms raise none of the problems that singular terms raise. What suggests itself is that "= Pegasus", "= mama", "= Socrates" etc. be parsed anew as indissoluble general terms, no separate recognition of singular terms "Pegasus", "mama", "Socrates" etc. being needed for other positions.

Quine is careful to say merely that his argument suggests that 'Pegasus' qua name be eliminated in accordance with the equivalence between '...a...' and '(∃x)(x = a and ...x...)'. His argument by no means requires that 'Pegasus' be so eliminated, nor does it even establish that such an elimination is possible. For the argument which establishes that equivalence relies upon existential generalization, and existential generalization fails in connection with such nondesignating singular terms as 'Pegasus'. Thus, Quine's argument would not be even suggestive to a disputant who had not already committed himself to the exclusion of nondesignating singular terms. And so the argument sheds no direct light upon how such terms are to be shifted from their (at least apparently) referential position in '...a...' to their (according to Quine) non-referential position in '= a'. Therefore, let us see what more Quine has to say; he continues:

The equation "x = a" is reparsed in effect as a predicaton "x = a" where "= a" is the verb, the "F" in "Fx". Or look at it as follows. What was in words "x is Socrates" and in symbols "x = Socrates" is now in words still "x is Socrates", but the "is" ceases to be treated as a copula which, as in "is mortal" and "is a man", serves merely to give a general term the form of a verb and so suit it to predicative position. "Socrates" becomes a general term that is true of just one object, but general in being treated henceforward as grammatically admissible in predicative position and not in positions suitable for variables. It comes to play the role of the "F" of "fa" and ceases to play that of the "a".
Earlier (p. 73) we noted Aristotle's view that (the names of) individuals are indefinable. We may take this view to imply that there is no formulable condition, $F$, which a given individual, $a$, must (by definition) satisfy merely to be itself—i.e., we may take this view to imply that no proposition of the form

\[(1) \quad (\forall x)[(x = a) \equiv Fx]\]

is analytically true. In the above passage, Quine's (implied) answer to this view is that, if we interpret '$F'$ as the predicate '...is identical to $a$', then (1) becomes

\[(2) \quad (\forall x)[(x = a) \equiv (x = a)],\]

which is analytically true. Moreover, if we treat '$x = a$' as an instance of '$x$ is $F$', then the problematic term '$a$' (which being a name must refer to something) becomes an indissoluble part of the predicate '$= a$' (which being a predicate may of course have an empty extension).

On Quine's interpretation, the sentence '$x = a$' means '$x$ is identical to an $a$'; for the purport of uniqueness is lost when '$a$' is construed as a general term. The sentence '$x$ is identical to an $a$' is merely a long-winded version of '$x$ is $a$', where 'is' functions predicationally: the sentence '$x$ is identical to a horse', e.g., merely means '$x$ is a horse'. Thus, Quine concludes:

The reparsing depended on a theorem of confinability of singular terms to the position '$= a$'. But the theorem applied only to purely referential uses of the terms. What of their use, so hard to classify and so beset with anomalies, before "exists"? It turns out to perfection. Our ill-starred previous suggestion of "$(\exists x)(x$ is Pegasus)" as a paraphrase of "Pegasus exists", comes into its own when "$x = Pegasus$" is reparsed as "$x$ is Pegasus" with "Pegasus" as general term. "Pegasus exists" becomes "$(\exists x)(x$ is Pegasus)" and straightforwardly false; "Socrates exists" becomes "$(\exists x)(x$ is Socrates)", with "Soc-
rates" as general term, and probably true (with timeless "is", of course). "Socrates" is now a general term, though true of, as it happens [my italics] just one object; "Pegasus" is now a general term which, like "centaur", is true of no objects. The position of "Pegasus" and "Socrates" in "(x)(x is Pegasus)" and "(x)(x is Socrates)" is now certainly inaccessible to variables and certainly not purely referential, but only because it is simply no position for a singular term; "x is Pegasus" and "x is Socrates" now have the form of "x is round".

Various authors have objected to the loss of purported uniqueness involved in treating names as general terms. Quine treats the verb 'pegasizes' as fundamental and derives the name 'Pegasus' from it. Presumably, just as distinct individuals could be round, distinct individuals could pegasize. This result does seem unsatisfactory from an intuitive point of view. For insofar as pegasizing is supposed to capture the very essence of being Pegasus, it is surprising to find that non-identical individuals might each pegasize--i.e., that the predicate '=' pegasus' might be true of non-identical individuals. But, of course, Quine isn't forced to give up the transitivity of identity: the paradoxical result that '=' a' might be true of non-identical individuals merely underscores the fact that on his analysis '=' a' must be read as '=' an a', where 'a' is general.

In the formula

(1) (\forall x)[(x = a) \equiv Fx],

however, the identity sign is used in its conventional sense, and expresses

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1See, e.g., Geach, P., Mental Acts (London: 1971), pp. 67-8. (For Quine's discussion of this objection, see Word and Object, p. 182.)

2See From a Logical Point of View, p. 8. Significantly, in Methods of Logic (New York: 1959), p. 218, Quine says: 'We may insist that what are learned by ostension, or direct confrontation, be never names but solely predicates.'
a transitive property. Thus, when we treat 'a' as a general term in order to make it fit the schema 'Fx' in (1), the result is not the apparent tautology

\[(2) \ (\forall x) [(x = a) \equiv (x = a)],\]

but rather the mysterious

\[(2') \ (\forall x) [(x = a) \equiv (x = an a)].\]

In (2') the first occurrence of 'a' is singular; the second, general. Therefore, until a sense is attached to 'a' qua general term we do not know that the individual named by 'a' is an a; for the extension of a general term is determined by its sense. Consequently, until we have a sense of 'a' qua general term the truth-value of (2') is undetermined. (2') then can hardly be called a tautology: it will be true for some interpretations of the predicate 'a' and false for others. We could, of course, save the tautologous character of (2') by treating both occurrences of 'a' as general. But, if we begin with the assumption that 'a' is general, (2') will tell us nothing about how a singular term is to be eliminated in favor of a general term. (2') reveals how to effect such an elimination only on the assumption that it expresses an equivalence between the singular statement that \(x = a\) and the general statement that \(x = an a\).

Let us suppose that 'a' is 'Socrates'. Let us further suppose that we know the exact place and time of Socrates's birth, so that we may say that an individual is Socratic if and only if he was born at \(P(x,y,z,t)\). This provides us with a sense for 'Socratic', and moreover one which insures that only Socrates will be in the extension of 'Socratic'. We have therefore granted all that Quine could ask for. Note, however, that \((\forall x)(x = \text{Socrates if and only if } x \text{ is socratic})\), although true, is not analytically true; for
it is not necessary for this individual whom we call Socrates to be Socratic—to have been born at \( P(x, y, z, t) \). We all know that someone else might have been born where Socrates was in fact born, or that his mother might have been somewhere else when she gave birth to Socrates. No one believes that the individuals to whom we refer could not have failed to possess the characteristics by which we happen to identify them. Thus, although it may be true that a certain predicate 'F' has an extension which in fact contains only the referent of a given singular term 'a', it will not be analytically true that something is \( F \) if and only if it is identical to \( a \). I conclude then that 'a' cannot be eliminated by definition in favor of 'F'. For I take it that, if we are to eliminate 'a' in favor of 'F', then

\[
(1) \ (\forall x)[(x = a) \equiv Fx]
\]

must hold as a logical truth. Otherwise, the sentences containing 'F' will be an inadequate expression of those containing 'a'.

Of course, it is open to Quine to object that in my criticism of his position I am leaning too heavily upon the notion of analyticity, a notion which he has often criticized.¹ I assume, it may be said, that for general terms but not singular ones there are analytic criteria of application. It may be objected, however, that for some general terms at least there are no analytic criteria of application. William James writes:²

Most books on the philosophy of religion try to begin with a precise definition of what its essence consists

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¹It is to be observed, however, that there are philosophers who make a sharp analytic/synthetic distinction and who also believe that singular terms are eliminable along the lines Quine suggests.

of. Some of these would-be definitions may possibly come before us in later portions of this course, and I shall not be pedantic enough to enumerate any of them to you now. Meanwhile the very fact that they are so many and so different from one another is enough to prove that the word "religion" cannot stand for any single principle or essence, but is rather a collective name. The theorizing mind tends always to oversimplification of its materials. This is the root of all that absolutism and one-sided dogmatism by which both philosophy and religion have been infested. Let us not fall immediately into a one-sided view of our subject, but let us rather admit freely at the outset that we may very likely find no one essence, but many characters which may alternately be equally important in religion. If we should inquire for the essence of "government", for example, one man might tell us it was authority, another submission, another police, another an army, another an assembly, another a system of laws; yet all the while it would be true that no concrete government can exist without all these things, one of which is more important at one moment and others at another. The man who knows governments most completely is he who troubles himself least about a definition which shall give their essence. Enjoying an intimate acquaintance with all the particularities in turn, he would naturally regard an abstract conception in which these were unified as a thing more misleading than enlightening. And why may not religion be a conception equally complex?

Perhaps, 'Socrates' is eliminable in favor of a predicate for which, like 'religion' and 'government', there are no analytic criteria of application, so that the predicate 'Socratic' in some way captures the sense of being Socrates without making it analytically true that whoever is Socratic was (e.g.) born at P(x,y,z,t).

This objection raises some large issues in the philosophy of language, which I am not now prepared to face directly. My inclination is to make a sharp analytic/synthetic distinction. I agree that it is often difficult, and occasionally impossible, to arrive at a satisfactory definition for a given general term. But I think that these difficulties arise owing to the vagueness and ambiguities in the senses of general terms, and do not imply
a lack of sense (meaning) for the terms suffering such difficulties. It seems to me, on the other hand, that singular terms do not have senses, and therefore that they cannot be eliminated in favor of general terms without altering their function in discourse. I will not attempt here to establish my view of language, but will instead merely adduce some informal considerations which I hope may cause the reader to see things as I do.

Our claim is this: definitions are generic, and therefore of terms for species, not individuals. On our account, then, Russell's belief that proper names are meaningless comes to this: proper names are indefinable. One could, of course, attempt to circumvent the generic character of definitions by attaching a uniqueness condition to them, so that at most one individual could satisfy a given definition. Thus, one might define 'George Washington', e.g., as 'the first president of the United States'. But then, if the United States had lost its Revolutionary War or, if, like ancient Rome, had had two chief executives, George Washington would not have existed. In this connection, it is instructive to compare the following arguments, of which the first is clearly valid; and the second, clearly invalid:

1) John Connally in 1964 was a Democrat.
2) John Connally in 1974 was a Republican.
3) Therefore, John Connally changed his political party.

And:

1') The president of the United States in 1964 was a Democrat.
2') The president of the United States in 1974 was a Republican.
3') Therefore, the president of the United States changed his political party.

The first argument succeeds because no one else could have been John Connal-
ly in 1974 except the man who was John Connally in 1964. But, of course, someone other than the one who was president in 1964 could have been president in 1974. Thus, definite descriptions, unlike proper names, function like ordinary predicates (e.g., 'wealthy') whose extensions vary over time. Names, unlike definite descriptions, are used in a way which guarantees unchanged reference. This guarantee, however, is not provided by the steadfast character of their referents (which could not be relied upon absolutely), but by our refusal to stipulate conditions which by definition the bearers of the names must satisfy.

There is thus a difference between proper names and definite descriptions. Definite descriptions are not primitive singular terms, whereas proper names (in at least some of their uses) are. The predicate being the president of the United States at t can be instantiated by only one individual, and only one individual can be John Connally. Yet there is a difference between the name and the description. The man who is the president of the United States could have failed to be so, but the man who is John Connally could not have failed to be himself—despite any change in his character. For, even if his character had been different from what it is, it is he—and not his character—to whom we refer when we use his name. In the Principles of Mathematics, p. 502, Russell reveals the salient differences between singular terms and definite descriptions:

It seems to me that only such proper names as are derived from concepts by means of the can be said to have meaning, and that such words as John merely indicate without meaning.

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1 My point can be preserved even for those who prefer to de-tense predicates: the de-tensed predicates 'wealthy in 1964' and 'wealthy in 1974', e.g., could have different extensions. But 'John Connally in 1964' and 'John Connally in 1974' could not in the same way pick out different individuals.
This difference between 'John' and 'the present king of France' explains why the one expression is not eliminable qua singular term and the other is. A definite description applies to someone in virtue of his satisfaction of a generic condition which may be taken to define the description. Proper names in their most characteristic uses, I have been suggesting, do not function in this way.

Though I reject Quine thesis that singular terms are eliminable in every context, I nevertheless believe that he gives a correct analysis of existential propositions. But we must disentangle that analysis from the eliminability thesis in which it is embedded.

Basically, Quine accepts the Frege-Russell analysis of existential propositions in terms of predicate extensions. But we may accept this analysis without holding any the following views:

(1) 'Julius Caesar exists' is meaningless. (Frege)
(2) 'Julius Caesar' is not a genuine proper name. (Russell)
(3) 'Julius Caesar' is eliminable as a singular term in every context. (Quine)

The Frege-Russell analysis, as we had occasion to note earlier (pp. 297-8), commits one only to the thesis that in the sentence 'Julius Caesar exists' the expression 'Julius Caesar' does not function as a proper name—i.e., is not used referentially. But in a natural language one and the same expression in different contexts can fulfill different grammatical roles. Thus, in other sentences 'Julius Caesar' may be used as a proper name.

To appreciate the importance of these remarks on proper names, consider the following objection to Quine's analysis of existential propositions. When 'Pegasus' is construed as a general term having sense, then (so goes the ob-
jection) contrary to what Quine says '(\{x\}(x \text{ is } \text{Pegasus})' is not 'straightforwardly false': its truth-value is open until the sense of 'Pegasus' is determined. But whatever sense we attach to 'Pegasus' qua predicate, that sense will not be equivalent to its sense qua name; for 'Pegasus' qua name has no sense. We know, of course, that 'Pegasus exists' is false. But, as Quine admits,¹ 'Pegasus exists' is not synonymous with '(\{x\}(x \text{ is } \text{Pegasus})'. Therefore, from the falsity of 'Pegasus exists' we cannot infer the falsity of '(\{x\}(x \text{ is } \text{Pegasus})'. When we treat 'Pegasus' as a name in one proposition and as a predicate in another, the connection between the two propositions is bound to be mysterious.

But I say that in neither proposition does 'Pegasus' function as a name. The expression 'Nixon', e.g., functions as a singular term in 'Nixon visited China', but not in 'Wallace is another Nixon'. In existential contexts, the subject term cannot function referentially—i.e., as a singular term. Otherwise, negative existential claims would always be false and positive existential claims always true.² In existential contexts, therefore, the expression 'a' functions like 'Nixon' in 'Wallace is another Nixon', and may therefore be eliminated in favor of an explicit predicate, such as 'crook'. But that same expression 'a', in another context, may function referentially, as does 'Nixon' in 'Nixon visited China'. In such a context, it would not be eliminable qua name without a meaning alteration for the proposition in which it occurs. Quine's eliminability thesis for expressions occasionally used as

¹See *Word and Objection*, p. 182.

²One would like to have (i) a deeper explanation of why singular terms cannot occur in existential propositions, and (ii) criteria for distinguishing referential from non-referential occurrences of expressions. Concerning these matters I have nothing constructive to say, except to observe in the case of (i) that existential judgments are perhaps general because things are identifiable only in terms of their general characteristics.
names is thus true with respect to existential contexts and false with respect to referential contexts.

We have therefore a straightforward answer to the prima facie objection that, because 'Pegasus' functions as a name in 'Pegasus exists' but as a predicate in '(\exists x)(x \text{ is Pegasus})', the two propositions can be equivalent; and that answer is as follows: in neither proposition does 'Pegasus' function as a name—i.e., referentially. With equal validity, we could object that, because 'Nixon' is a name and 'crook' a predicate, the proposition 'Wallace is another Nixon' cannot mean 'Wallace is another crook'.

I conclude then that we may accept the Frege-Russell thesis that every existential claim, properly analyzed, manifests itself as a claim about the extension of some predicate; and this we may do without committing ourselves to Quine's thesis that an expression, used referentially, is eliminable in favor of a predicate.

6.7 Modality and Individual Substance  

I should like to hold that 'Pegasus' is never used as a name of something which is a winged horse, though it may of course be used as a name of something which is not a winged horse, say a child's dog. Quine, however, gives a syntactical characterization of names which makes 'Pegasus' a name simpliciter. Appealing to superficial grammatical considerations, he says that 'A singular term, e.g. "mama", admits only the singular grammatical form and no article'.\(^1\) By this criterion 'Pegasus', even construed as a name of a winged horse, is a name. Therefore the semantic requirement that a name actually name something must be weakened somehow. 'A singular term', Quine says,\(^2\),'names or purports to name just one

\(^1\)Word and Object, p. 90.  
\(^2\)Ibid., p. 90.
Having thus characterized singular terms, their elimination is essential if we are to prevent counter-examples to existential generalization and universal instantiation. But, as we have seen, it is highly questionable whether we will be able to find a predicate to which a given singular term, used referentially, is analytically equivalent and in terms of which the singular term in that use may be definitionally eliminated.

To avoid the problems which occur for Quine, I prefer to characterize singular terms in a way which links them to a rationalist theory of substance; Leibniz writes:

...when several predicates are attributed to the same subject and this subject is not attributed to any other, it is called an individual substance.

An expression functions as a singular term in a given use, I shall say, when in that use it names an individual substance—i.e., an expression is used as a singular term when it is used as the irreducible subject of some proposition. It may, of course, be denied that any expression is ever used as a singular term in this sense, since it may be doubted whether individual substances exist. But by arguing that proper names, unlike definite descriptions, cannot always be eliminated in favor of predicates, I have made my case for treating them (in some of their uses) as names of individual substances.

I am committed to the view that, if 'a' names an individual substance, then no proposition of the form 'a is F' is analytically true. Individual substances do not possess essences. But I do not believe that it therefore follows that individual substance possess their properties only contingently. When we say, e.g., that men are essentially rational, we mean that nothing

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could be both a man and not rational; and, when we say that men are only contingently two-legged, we mean that something could be both a man and yet not two-legged. More generally, if two attributes, F and G, are so linked that 'if something is F, it is G' is necessarily true, then being G is essential to being F. If they are not so linked, then being G is incidental to being F. The distinction between essence and accident turns upon the relations between attributes, not upon the relation of an individual substance to its attributes.

The fact that men are essentially rational conveys no information whatever upon the security with which rationality is tied to Socrates, for there is no logical rule which will confine Socrates to one species rather than some other. This is a consequence of the fact that no proposition of the form

\[(1) \ (\forall x)[(x = a) \equiv Fx]\]

is analytically true. The distinction between essence and accident applies only at the level of species. Therefore, we cannot say that Socrates, an individual, is essentially rational or that he is only accidentally so: the inter-relations of attributes simply do not convey that information. In an insightful passage Quine writes:

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Mathematicians may conceivably be said to be necessarily rational and not necessarily two-legged; and cyclists necessarily two-legged and not necessarily rational. But what of an individual who counts among his eccentricities both mathematics and cycling? Is this concrete individual necessarily rational and contingently two-legged or vice versa? Just insofar as we are talking referentially of the object, with no special bias toward a background grouping of mathematicians as against cyclists or vice versa.

\[1\text{Word and Object, p. 199.}\]
versa, there is no semblance of sense in rating some of his attributes as necessary and others as contingent. Some of his attributes count as important and others as unimportant, yes; some as enduring and others as fleeting; but none as necessary or contingent.

Because 'G-ness' may be defined in terms of 'F-ness', being G may entail being F. Hence, it would be impossible for something to be G without also being F. But I have argued that there is no general expression, 'G-ness', in terms of which a name, 'a', may be defined. Hence, being a never entails being G, so that it is never impossible for a not to be G. That is to say, being a could never be incompatible with being not-G. But two attributes, on the other hand, may be said to be incompatible when they cannot be jointly instantiated. It makes no sense, however, to speak of an individual being instantiated. That is why Leibniz could not explain the incompatibility between individuals which his system demanded. (see section 4.5 above)

Two attributes, G-ness and F-ness, may be said to be compatible when they can be jointly instantiated, and in that event it would be possible for something to be both F and G. But, again, it makes no sense to speak of an individual being instantiated: that was the point of our saying that existential propositions are always general. The relations of compatibility and incompatibility thus obtain between attributes, not between individuals or between individuals and attributes. Consequently, it is only to general propositions that we may apply (logical) modal operators, since these are the propositions which express the relations between attributes. It is because of these peculiar relations of compatibility and incompatibility which hold only between attributes, that we can easily understand the claim that mathematicians are necessarily rational, and then be perplexed by the claim that Norbert Weiner, a mathematician, is necessarily rational. With equal
validity we might infer that Norbert Weiner is numerous because men are and 
he is a man.

A general proposition 'G's may be F's' is true, I shall say, if and 
only if G-ness and F-ness are compatible—i.e., admit of joint instantiation. These 
two attributes are compatible if and only if 'G's are not F's' 
is not analytically true—i.e., if and only if it does not follow from the 
meanings of 'G-ness' and 'F-ness' that nothing which is G is F. Thus, for 
us, modal distinctions turn upon what can and what cannot be gotten out of 
definitions. Singular terms, being indefinable, do not even enter into the 
expression of propositions whose truth values are fixed by linguistic conven-
tion—i.e., they do not enter into the expression of (logical) modal propo-
sitions. Consequently, propositions having free individual-variables are 
without (logical) modal status, and the traditional distinction between ne-
cessity and possibility, understood in a logical sense, proves on our analy-
isis to be non-exhaustive. Of course, there is a clear sense in which I 
can lift (say) fifty pounds. But I should nevertheless resist the inference 
that it is logically possible for me to do so. Modal propositions involving 
singular terms I should explain in terms of physical possibility, where their 
truth values turn upon the nature of things rather than definitions.

Our unanalysed notions of necessity and contingency cover disparate con-
cepts. As these concepts are made precise and explicit through analysis, it

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1On our analysis, we may apply (logical) modal operators only to for-
mulas having a model in every domain, including the empty domain. For a non-
modal system whose wffs have models in every domain, see Quine, W., Selected 
Logical Papers, pp. 220-3. From Quine's system there we could generate a mo-
dal system which is acceptable from our point of view by adding special mo-
dal axioms and rules of inference—e.g., the rule that, if A is a theorem, 
then so is $\Box A$. 

is necessary to abandon certain intuitive beliefs which, without reflection, we had concerning them. In particular, I think we must abandon the belief that every proposition is either logically necessary or logically contingent. This done, we may resolve the Langford Paradox (see p. 190 above) as follows: \( \forall v \beta^v \) and \( \forall \) it is not the case that \( v \) is \( \beta^v \) will not be true unless (\( \exists \mu )(\mu = v) \). But, because \( \forall (\exists \mu )(\mu = v) \) has a free individual-variable, it is not a contingent proposition, and may therefore be entailed by these contradictory propositions.

6.7 Conclusion I have tried in this chapter to present a considerable defense for Russell's approach to the concept of existence. Since that approach is the very antithesis of what we found in Leibniz, a question arises as to whether we have decisively refuted Leibniz's thesis that the predicational use of 'to be' is independent of its existential use. The answer to this question is 'No'. The old logical positivists were right. Philosophical theories are not falsifiable. But this is so far from being a defect in philosophy that it accounts for the perennial attraction of good philosophy and for the special charm of the subject. I know that it is sometimes said that not even scientific theories can be decisively refuted in some absolute sense, that come what may we can hold to any belief, philosophical or otherwise. Well, perhaps this is so. But, were I an untenured exponent of the phlogiston theory, I should be getting exceedingly nervous as the time approached when I would be called upon to defend my position. It is, I am tempted to believe, a peculiarity of philosophy that wholly different theories may be alternatively maintained in connection with the same data. Let us see then what Leibniz might say to us to defend his position. 'You criticize me', he might say, 'for having a theory which issues in counter-intuitive results where existence is concerned while permitting yourself
this luxury in connection with modality, and your remarks on modality are so sketchy that one wonders just how counter-intuitive your developed position might prove to be. If nothing else, your severe limitations on modal propositions might make modal logic woefully inadequate for any interesting purpose. Besides, you deduce an absurdity in my system only by adding the axiom

\[ P(1x)Fx \rightarrow P(1x)(Ex \land Fx), \]

and the reason for asserting this axiom is very unclear. But whatever the intuitive basis for this axiom, permit me the luxury of revising that basis; and then we shall have a system of thought in which the predicational use of "to be" is independent of its existential use. That there is some intuitive basis for my approach to existence is evident from the fact that "Pegasus is a fiction" does not imply "Pegasus exists." I have no doubt that a logical system could be developed in which the predicational use of 'to be' is independent of its existential use. My only complain against those who have tried recently to develop such systems is that they, unlike Leibniz, have not made the foundation of their views sufficiently clear to produce a considerable position.
CONCLUSION TO PART III

In selecting topics for discussion I have tried to fix my eyes upon what has proved itself to be of permanent value in philosophy. Perhaps, because of this some contemporary figures of importance have been neglected. I admit the relevance of their work to mine. In particular, it would have served my purposes to discuss the causal theory of reference, but one must make choices. If it turns out that this brief span of existence through which we in our time pass is being occupied by the best philosophers, then my omissions might seem very serious indeed. But I claim merely to have written a philosophical novel in which I have applied the names of historical figures to my characters, each character representing a certain position. Since these positions are more or less occupied at different times by different figures, it is not a matter of much importance which figures I have chosen as representatives. To set my discussion in a contemporary context, one might (e.g.) read 'David Lewis' where I write 'Leibniz'.

1For a Leibnizian approach to quantification theory, see Lewis, D., 'Counterpart Theory and Modal Logic', Journal of Philosophy, vol. 65 (1968), pp. 113-26
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