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RELATIVE IDENTITY RECONSIDERED

by

OLIN HILLS JOYNTON

A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE
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Introduction

This work is an exploratory quest for the most favorable interpretation of the theory of relative identity. It has been prompted by the largely adverse critical responses to the theory, in the hope that refinement of this controversial theory might obviate certain objections to it. Since the locus classicus of the theory of relative identity is the work of P.T. Geach, the present work takes the general form of a reply to Geach's detractors.

On two accounts the critical reception of Geach's work is hardly surprising. In the first place, the widespread acceptance of relative identity would require a significant number of adjustments in logic and quantification theory. Just to give some examples, it would be necessary to regard no expression of identity as well-formed which was not qualified by a covering sortal. As the theory of identity stands now, it is not required that expressions of identity have this structure. In addition, logicians would have to make amends for the fact that in modern quantification theory no distinction is observed between sortal and non-sortal predicate expressions. Finally, Leibniz's Law would have to be construed as true for each and every theory but not true in some theoretically independent way. Here, as else-
where, the counsel of conservatism speaks against the adoption of such disruptive innovations.

In the second place, Geach's arguments for the theory of relative identity are flawed by a paucity of systematic coherence, adequate explanation and convincing examples. The ill-considered introduction of dubious entities like surmen and official personages makes it rather difficult for Geach to be taken seriously, much less sympathetically. And if that were not bad enough, it is all too easy to lose patience with Geach's enthymematic demonstrations and cryptic pronouncements. But despite the poverty of his presentation, Geach's views on identity (for the most part) are more than worthwhile to defend; with some qualifications, they appear to be correct. Thus it remains for a partisan of relative identity to organize the relevant claims, clarify the arguments that Geach does provide and invent others which he could have deployed. A considerable portion of this work is devoted to setting the stage in this manner so as to provide the most favorable background for the polemical dialectic which ensues. The intended effect of such preparation is the creating of avenues of response to some of the received objections to the theory of relative identity. The majority of these objections will be found wanting due to the misunderstanding of relative identity betrayed therein.
Many of Geach's detractors present paradigm cases of how not to understand the theory of relative identity. Of course, in saying how not to understand relative identity, I shall have to say how to understand it. Perhaps the best way in which to begin is to ask: given that identity is relative, to what is it relative? Geach argues for a two-fold answer to this question, corresponding to the two main claims that distinguish relative identity from absolute identity. In this first place, the D thesis$^2$ rules out any statement of identity which is not of the form 'a is the same F as b' (when 'F' is a sortal term) on the grounds that it is incomplete. Identity is thus relative to some sortal term in every case, according to Geach. In the second place, a statement of the form 'a is the same F as b' has the status of an identity statement only with reference to the theory or theories in which it appears as a claim. It is possible, according to the R thesis,$^3$ that a given statement of this form is a statement of identity in one theory but not in another; and in a theory in which it does not have this status, its truth is not sufficient for the truth of some other statement of this form, say, 'a is the same G as b,' which does have the status of an identity claim in the same theory.

Thus, Geach maintains that identity is both sortally and theoretically relative. One important aim of
this work is to discover how these two senses of relative identity complement each other and work together. The importance of this aim is underscored by the fact that positions have been worked out in which relative identity in one sense is explicitly accepted and in the other sense explicitly rejected. Wiggins argues for D and against R, while Quine favors theoretically relative identity and disfavors sortally relative identity. I shall come to question the tenability of these partial relativizations of identity in the course of finding coherence in Geach's full relativization of identity.

The historical roots of relative identity may be traced to the work of Aristotle, Aquinas, Locke, Leibniz and, more recently, Tarski and Quine. Among the larger issues raised by the theory of relative identity is that of essentialism, and Geach attempts to steer a narrow course between the extreme positions on this issue. On one hand, he rejects the Aristotelian attribution of essential properties to objects, partially on the grounds that properties themselves are without adequate criteria of identity and therefore should not be admitted at all. On the other hand, Geach is no nominalist and argues at length that the kind to which an entity belongs plays a crucial role in settling questions about its identity. He is thus attracted to Locke's nominal essentialism and makes
use of Locke's doctrine that different criteria of identity are generated by the kinds to which different things belong. Locke was the first philosopher to work out in detail the view that identity must be suited to the idea of that which is being judged identical, and for Geach, the plurality of identity criteria leads to the conclusion that there is a plurality of identity relations: one for each sortal $F$ in the schema 'a is the same $F$ as b.' The assignment of a sortal to an object, however, is not a free-standing occurrence but rather something done within a theoretical context. And since theories differ considerably with respect to the refinement of their systems of sortal classification, a sortally qualified judgment of identity cannot be construed as absolute in any important sense. On this point Geach disposes himself favorably toward Quine's ontological relativism, a comparison which I shall draw out in the discussion of how terms refer in the theory of relative identity.

It would be easy to observe, after all this, that Geach overlooks and even contradicts Leibniz's Law in attempting to relativize identity. There is no special status accorded to sortal terms in Leibniz's Law, and indiscernibility may appear to be a necessary condition of identity irrespective of the theories to which judgments of identity belong. This depends, I shall argue, on how indiscernibility is understood. If indiscernibility is
a matter of having properties in common, then Quine's sceptical challenge to the possibility of criteria of identity for properties must somehow be answered. Because the attempts to do so are not very successful, there is a strong basis for preferring another interpretation of indiscernibility: when \( a \) and \( b \) are indiscernible, whatever is true of \( a \) is also true of \( b \), and conversely. According to Geach, it is a clear shot from this interpretation of indiscernibility to the relativity of Leibniz's Law -- and hence, to the relativity of identity. To make this transition, he invokes Tarski's semantic conception of truth, a consequence of which is that speaking unrestrictedly of 'whatever is true of \( a \)' engenders semantic paradox. The restrictions it is necessary to place on such expressions turn out to be defined by theoretic borders, with the result that Leibniz's Law has application within some particular theory in every case.

The theory of identity has traditionally, though with some exceptions, led rather separate lives as part of logic on one hand and as part of metaphysics on the other. It is a real virtue of Geach's view of identity that this artificial bifurcation is ignored and that some attempt is made to ensure that logic and metaphysics are mutually informed. A similarly encouraging tendency may be noted in recent work on the connection between modal logic and the ontology of possible worlds. This
is the method of true philosophy: wherein logic is rendered as an empty and merely formal science, and metaphysics is not written off as wayward and unrestrained speculation.
Chapter I: Leibniz's Law

Section A: Introduction

One would think that there would be no more appropriate way to begin a treatise on identity than by presenting a detailed analysis of Leibniz's Law. Yet it might also seem difficult to say anything philosophically interesting about a principle which is so obviously and trivially true. Thus, whatever Leibniz's Law gains from being universally acceded to, it loses from being treated with diplomatic immunity from critical scrutiny. In this chapter I shall argue that there are at least two quite different readings of this august principle of identity, one of which is much more reasonable to accept than the other. This should be interesting on its own account, but it also has some rather considerable consequences for the theory of identity in general. My aim in discussing Leibniz's Law at the outset is to portray the extent to which one's interpretation thereof settles the question of whether one's view of identity is absolute or relative. There is throughout this chapter implicit proscription of authors who bandy about Leibniz's Law without reflecting on the various ways in which it could be construed.

Leibniz's Law states that indiscernibility is a necessary condition of identity: $a$ is identical with $b$ only if $a$ and $b$ are indiscernible.\(^1\) Now the best procedure for
generating different readings of Leibniz's Law is to consider what it means for a and b to be indiscernible. 'Indiscernible,' in one sense, is a dispositional term, like 'soluble;' I shall refer to indiscernibility in this sense as 'perceptual indiscernibility.' To roughly characterize this notion, a and b are perceptually indiscernible if someone endowed with normal human perceptual abilities cannot tell (i.e., see, hear, feel, taste, smell) the difference between a and b. Just as 'sugar is soluble in water' (given certain initial conditions) means 'if sugar were stirred into water it would dissolve,' so 'a and b are perceptually indiscernible' (given certain initial conditions) means 'if a and b were inspected by someone endowed with normal perceptual capacities, no differences between a and b would be detected.' I would say that a sound pitched at 440.000 cycles per second and one pitched at 440.001 cycles per second are perceptually indiscernible, or indiscernible in the dispositional sense.

Although perceptual indiscernibility would be very worthwhile to investigate, it would be out of place to do so here; because, if I understand the matter aright, the indiscernibility of Leibniz's Law is not taken to be perceptual indiscernibility. There is something counter-intuitive about saying that the identity -- the real identity -- of a and b depends on how refined human perceptual capabilities happen to be. We would like to say that there is a possible world in which human beings have
more discriminatory perceptual powers than they do in the actual world; there is no logical contradiction in saying that we could have had a sense of hearing with which to tell the difference between a sound pitched at 440.000 cycles per second and one pitched at 440.001 cycles per second. But it would sound wrong to say that in that world the sounds are diverse, but in our world they are identical.

So to avoid problems like this, it may be suggested that we must take the indiscernibility in Leibniz's Law in some non-perceptual, non-dispositional sense. I shall eventually argue that to make this move with these motives is to enter a fool's paradise, for this move does not succeed in circumventing problematic situations of the kind just described. I hope to show that an incorrect view of identity is what makes it counter-intuitive to regard the sounds identical in our world but not in all possible worlds. But for the time being, I shall move away from perceptual indiscernibility and see what happens to Leibniz's Law when indiscernibility is understood in a non-perceptual, non-dispositional way.

Reading 'indiscernible' in this non-perceptual way, what is meant by the claim that a is identical with b only if a and b are indiscernible? There are two standard ways of spelling out this claim which I designate 'LLI' and 'LLII,' respectively:
LLI: \( a \) and \( b \) are identical only if whatever is true of \( a \) is true of \( b \), and conversely.

LLII: \( a \) and \( b \) are identical only if \( a \) and \( b \) have all their properties in common.

It is a matter of primary concern in this chapter to show three things: 1) that it is erroneous to suppose that LLI and LLII are interchangeable or logically equivalent, 2) that there are good reasons for accepting LLI and rejecting LLII, and 3) that LLI means that Leibniz's Law is, in a certain sense, relative. The rest of this chapter is divided into respective discussions of these three themes.
Section B: On the Difference Between LLI and LLII

LLI is an essentially linguistic version of the indiscernibility of identicals. One way in which to bring this about is to note that it is not properties which are true of things, but predicables; and predicables are linguistic entities. In Geach's terminology, a predicate is an actual occurrence of a predicatable in some sentence; a predicatable becomes a predicate when it is used to predicate. Geach characterizes a predicate in the following manner:

A predicate is an expression that gives us an assertion about something if we attach it to another expression that stands for what we are making the assertion about.  

Predicables are thus irreducibly linguistic, and every predicatable is a predicatable of some particular language or theory (the difference between a language and a theory is unimportant here). A language or theory typically has a definite, limited stock of terms or expressions; I shall ignore cases in which this might not be so. Accordingly, the predications of a language or theory form a definite, limited list: the ideology of a theory or language, to follow Quine's convenient usage. For any given predicate it should be possible to tell which languages or theories have ideologies of which it is a member; for any given language or theory it should be possible to tell which predicables are included in its
ideology.

An illustrative case in which the predicable-based indiscernibility of LLI obtains might be set forth as follows. Suppose there is a theory whose ideology is comprised of a list of one hundred predicates. This list represents everything which, in this theory, can be affirmed or denied of those things which the theory is about (the ontology of the theory, to continue with Quine's usage). Now if fifty of these predicates are true of both _a_ and _b_ and the other fifty of these predicates are true of neither _a_ or _b_, then whatever is true of _a_ in this theory is true of _b_ in this theory, and conversely. Hence, _a_ and _b_ are indiscernible in this theory, and a necessary condition for the identity of _a_ and _b_ has been met. A great deal more needs to be said about what it is for a predicate to be true of _a_ and _b_, in a theory, but I shall defer my discussion of this point to Section D of this chapter. The main points here are that, according to LLI, _a_ is identical with _b_ only if whatever predicate is true of _a_ is also true of _b_, and conversely. And to be a predicate is to be a member of some definite, limited ideology of some particular theory or language.

Turning to LLI, we find that the indiscernibility of _a_ and _b_ is a matter of their having exactly the same properties. To consciously prefer this reading of Leibniz's Law is to deliberately wrest the notion of indiscernibility from any theoretic or linguistic framework. Semantic notions
such as "true of..." are not introduced in LLII. Instead, we are to regard object \( a \) as having a certain number of properties in rerum natura: precisely those which \( b \) has, iff \( a \) and \( b \) are indiscernible in this sense. On this reading of Leibniz's Law, it makes absolutely no difference whether or not any theory recognizes, or has the means with which to recognize, the fact that \( a \) and \( b \) have all their properties in common. Properties, after all, are part of the world, and the having of properties is something which takes place in the world. And what is the case in the world should not be dependent upon whether or not there are any languages or theories around with which to refer to and characterize what is the case in the world.

Given these radical differences between what LLI and LLII claim, it is quite surprising that anyone would think that they come to the same thing. Nevertheless, the tendency to overlook the differences between LLI and LLII might be accounted for by noting the prevalence of a certain view about the relation between predicables and properties. According to this view, which Quine satirizes as "the fantasy of a gallery of ideas and labels,"\(^6\) predicables stand for properties in pretty much the same way that subjects stand for the things which have properties. We have here one (but by no means the only) version of the two-name theory of predication. An upholder of this version of the two-name theory of predication would analyze a proposition like 'Socrates is wise' in something like the
following fashion. 'Socrates' refers to the man, Socrates, and 'is wise' refers to the property of being wise; and the sentence is true iff Socrates and the property of being wise get hooked up together in such a way that Socrates has, or possesses, that property.

Now the two-name theory of predication is patently false; but even if it were true, there would be no justification for conflating LLI and LLII. As for its falsity, Geach inveighs heavily against the failure to observe what Quine has called "the gulf between naming and meaning":

If terms are thought of as (at least potential) names, then the natural idea is that the truth of the categorical consists in its putting together two names of the same thing. In fact a categorical is true if its predicate is a predicatable applying to that which its subject is the name of; the two-name theory of predication is derivable from this principle if one confounds the relation of being a predicatable applying to with the relation being a name of....

The two-name theorist supposes that 'is wise' must name the property of being wise, because the sentence 'Socrates is wise' is true.

But what the names in a proposition stand for cannot be determined by whether the proposition is true or false: on the contrary, we can determine whether the proposition is true only when we know what it is about, and thus what the names in it stand for.

Geach continues on by noting some clear differences between terms which perform a naming role in sentences and
those which perform a predicating role. 1) A predicate can be true or false of something, but it is nonsense to say that a name can be true or false of something. 2) Predicables come in contradictory pairs, while names do not. When a sentence is negated, the negation belongs with the predicative part of the sentence. If I say, 'It is not the case that John is here,' I must be taken to mean, 'John is not here' rather than 'Not-John (or non-John) is here.' 3) Predicates can take on tenses, while names cannot. 4) Names are logically simple units and relate directly to their bearers. The logical simplicity of names follows from the fact that they do not have parts which have any significance on their own. One cannot infer from 'Willy's Pub sells good beer' to 'There is a pub where Willy sells good beer.' (On the assumption that 'Willy's Pub' is a name rather than a definite description.) By contrast, it is entirely possible for a predicable to be logically complex. 10

All this seems to be decisive evidence against the two-name theory of predication. In the words of Quine,

Taking predicates as lexical does not mean taking predicates as names and accordingly positing attributes for the predicates to be names of.11

Yet even if it were true, it would be impossible to claim that the choice between LLI and LLI is an indifferent matter. This is so because predicates, being essentially linguistic in nature, are denumerable and must be seen as
comprising a definite and limited list. In the next section I shall voice scepticism about the denumerability of properties, but it is not necessary to be sceptical on this point to see that there could be no definite and limited list of all the properties. The difference between LLI and LLII might come to nothing if there were a one-to-one correspondence between all the predicates and all the properties. This would be the case if there were just one property named by each predicate and one predicate which was the name of each property. But if properties are denumerable at all, they are infinitely denumerable (as I shall attempt to show in the next section); by contrast, predicates are certainly denumerable, and they are finitely denumerable. I take it that there cannot be a one-to-one correspondence between all the members of an infinite set and all the members of a finite set. So there is no recourse here for one who would minimize the difference between LLI and LLII.

It should be beyond dispute by now that LLI and LLII are not equivalent; thus, they could have different truth-values, and in accepting one a person need not be committed to accepting the other. What may not be clear at this point are some of the far-ranging philosophical ramifications of accepting one as opposed to accepting the other. In the section to follow I shall bring to light what really hangs on the choice between LLI and LLII and argue that the consequences of accepting LLII are unwelcome in an important
and philosophical way.
Section C: Some Problems about Properties

With the currency of Quine's slogan, "No entity without identity!" comes a popular technique for impugning the existence, or ontological status, of objects of various kinds. This slogan sets the requirement that it must be possible, at least in principle, to formulate criteria of identity for every kind of object which exists. This appears to be a reasonable requirement, because no one doubts that everything is identical with itself and diverse from everything else. Having a criterion of identity for an object of a given kind enables one, so to speak, to tell where one object of that kind leaves off and another of the same kind picks up; thus, a sense is given to the self-identity and other-difference of an object of that kind. The force of Quine's slogan is that there could not exist objects of a certain kind if no criterion of identity for objects of that kind is possible. If it does not make sense to ask about objects of a certain kind whether this one is identical with that one, we are justified in concluding that objects of that kind do not exist.

One major limitation in applying this technique is the difficulty of telling the difference between 1) cases in which determining a criterion of identity is a very controversial matter but not, in principle, impossible to do; and 2) cases in which it is impossible, in principle, to determine a criterion of identity. The criterion of
identity for persons is a hotly disputed issue, and no one formulation of it emerges as clearly superior from these discussions. But as far as I know, it has never been suggested that we ought therefore to dispense with the existence of persons. To give an account of why personal identity is a case of the first type rather than the second would be a very hard task indeed.

Be this as it may, intensional objects are paradigm cases of the second type. Both Quine and Geach have argued to the effect that there are insurmountable barriers to the possibility of stating identity conditions for meanings, propositions, and properties. Quine writes:

The positing of attributes is accompanied by no clue as to the circumstances under which attributes may be said to be the same or different....what sense is there in saying there are attributes when there is no sense in saying when there is one attribute and when two?\textsuperscript{13}

The very question of conditions for identity of propositions presents not so much an unsolved problem as a mistaken ideal.\textsuperscript{14}

The moral that one is supposed to derive from this passage is that the positing of attributes, like the positing of propositions, is something which should not be done. Now if it can be shown that formulating criteria of identity for properties is a hopelessly problematic enterprise, and if no entities should be posited for which no adequate criteria of identity are possible, then we will have at hand some very powerful reasons for preferring
LLI to LLII. For LLII makes the claim that the properties of a are identical with the properties of b if a is identical with b, and this claim surely presupposes the existence of properties and the identity of properties. I shall, in fact, attempt to argue against LLII in just this way.

The main issue upon which the success of this argument turns is whether or not there can be an identity criterion for properties. The issue may be dealt with by first reviewing an attempt to formulate criteria of identity for properties and then going over some objections to this attempt. Among the proposals for criteria of identity for properties, Achinstein's may be taken as representative. According to Achinstein, if P and Q are properties, it is not enough that

I. \((P = Q) \supset (x)(x \text{ has } P \equiv x \text{ has } Q),\)

for on this principle extensionally equivalent properties would turn out to be identical. It is not likely that the property of having a heart would be regarded as identical with the property of having kidneys, even though every creature with a heart is also a creature with kidneys. The thought is that there could have been creatures with one property and not the other, and the contingent fact that there are none merely reflects the way things happen to be. These considerations argue for the adoption of a stronger principle:

II. \((P = Q) \supset N(x)(x \text{ has } P \equiv x \text{ has } Q).\)
This formula rules against the identity of the property of having a heart and the property of having kidneys. The question might arise here of whether there is necessity de dicto or de re in Principle II. Achinstein's reply is that Principle II involves de re necessity for properties but not for things, because a more complete form of ii would read:

$$(P)(Q) \left[ (P = Q) \supset N(x)(x \text{ has } P \equiv x \text{ has } Q) \right]$$

Since the necessity operator appears outside the scope of the thing quantifier but within the scope of the property quantifier, Principle II "commits us to essentialism for properties but not to essentialism for things."\(^{18}\) It might now be of interest to inquire how tenable it is to maintain this limited form of essentialism. Achinstein believes that Principle II must be replaced by a third principle if the criterion is to reflect our intuitions about property identity:

III. $$(P = Q) \supset (x)N(x \text{ has } P \equiv x \text{ has } Q).$$\(^{19}\)

On III, there is de re necessity for both properties and for things. The reason why II must give way to III is expressed by Achinstein in terms of what kinds of counter-factual we would allow in cases of property identity. If the property of being a bachelor is identical with the property of being an unmarried adult male, then it would sound natural to say that if Lyndon Johnson had been a bachelor he would have been an unmarried adult male. Now if Lyndon Johnson is identical with LBJ, it would sound
equally natural to say that if LBJ had been a bachelor, he would have been an unmarried adult male. Since it doesn't matter how Lyndon Johnson is referred to for the truth value of this counterfactual, property identity implies, according to Achinstein, an essentialist view of both properties and things. Achinstein summarizes his result by saying:

I believe that saying that if two properties are identical then anything is such that necessarily if it has one it has the other.  

I do not wish to criticize the particulars of Achinstein's efforts, although I find it disappointing in several respects: the distinction drawn between properties and things, the transition from II to III, and the unapologetic "appeal to whatever intuitions we have about correct use of the expression 'same property'.... and to examples we regard as paradigms and those we regard as inadmissible." What concerns me most about it is that there is not any attempt to meet Quine's sceptical challenge to the notion of necessity, especially de re necessity. Achinstein acknowledges this challenge:

For some the fact that we involve de re necessity and counterfactuals will only reinforce their suspicions about property identity. They may take this as proof that this is an obscure notion.

But he seems quite content to address himself only to the true believers in de re necessity and to ignore any audience which might have Quinean scruples over this notion. Quine's
objections to de re necessity in quantified modal logic are well known, but let us see how they apply in particular for the case of property identity. (1) In the first place, Quine believes that any use of 'necessarily...' has to get explicated in terms of analyticity, and there is little to be gained by reducing one obscure notion to another. 23 For example, if the property of being a bachelor is identical with the property of being an unmarried adult male, we might explain the truth of 'Necessarily all and only bachelors are unmarried adult males' by saying that 'bachelor' and 'unmarried adult male' are analytically equivalent. In fairness to Achinstein, it must be said that he does not think that expressions have to be analytically equivalent in order to stand for identical properties, but neither does he give much in the way of an alternative characterization of necessity.

(2) The locution 'necessarily' often signals a referentially opaque context, that is, one in which substitutivity salva veritate will not go through. Even though 9 is the number of planets and '9 is necessarily greater than 7' looks to be true, it does not seem true that the number of planets is necessarily greater than 7. On Quine's analysis of what has gone wrong here, it is nonsense to speak of necessity as a trait of objects: instead, necessity "depends upon the manner of referring to the object." 24 In support of this analysis, he notes that existential generalization cannot be applied to a statement like 'a is necessarily greater than 7' with the usual
results. In this case we would get '(\exists x)(x \text{ is necessarily greater than } 7)' But, asks Quine, what is that number which is necessarily greater than 7? 9, that is, the number of planets? Once again, the falsehood 'the number of planets is necessarily greater than 7' is yielded.\textsuperscript{25}

Another way of putting Quine's point is to take the property, if there is one, of being necessarily greater than 7 and note that 9 has it but that the number of planets does not, because the number of planets could have been 5. Another example of the sort that Quine is fond of using proceeds as follows.\textsuperscript{26} If de re necessity is acceptable, there should be nothing wrong with claiming that a mathematician is necessarily rational but not necessarily two-legged and that a cyclist is not necessarily rational but necessarily two-legged. But suppose Jones is both a mathematician and a cyclist: it follows that he is both necessarily and not necessarily rational and that he is both necessarily and not necessarily two-legged. Since this is self-contradictory, the thing to do is to excise the notion of de re necessity.

Another consideration against Achinstein's Principle III of property identity is that it begs precisely the question which is at issue. The proof of this would begin with the premiss that in quantifying over a domain of entities of a given kind, one presupposes that there are entities of that kind and that criteria of identity for objects of that kind are possible. Achinstein clearly
regards the complete form of Principle III as

\[(P)(Q)[(P = Q) \supset (x)N(x \text{ has } P \equiv x \text{ has } Q)]\,.

Thus, in quantifying over properties at the outset, he presupposes the existence of properties and the possibility of there being identity conditions for properties. But this is something which cannot be taken for granted here: this is the very point against which I am attempting to argue. The same sort of circularity would be present in the view that property identity can be covered by a special case of LLII:

\[(P)(Q)[(P = Q) \supset (\phi)(\phi P \equiv \phi Q)]\,.

where \(\phi\) ranges over all second-order properties. (Achinstein erroneously states that Principle III expresses Leibniz's Law for properties.) Here, as in Principle III, properties are quantified over with the appearance of all innocence; hence, this instance of Leibniz's Law would be of interest only to someone who took the existence and identity of properties as an unproblematic assumption.

Apart from these considerations, the case against the possibility of property identity may be furthered by examining the possibility of counting properties. As a general rule, if one can count objects of a certain kind, then there exists a criterion of identity for objects of that kind. Now to speak, in the manner of LLII, of \(a\) and \(b\) having all their properties in common would seem to presuppose the intelligibility of a question like 'How many properties does \(a\) have?'; for it is a peculiarity of count
nouns that they take plural forms and designate entities to which the question 'How many?' applies. Moreover, at least in the case of concrete entities, it would seem that there would have to be a definite, finite number of entities which are all and only the members of the class marked off by a given count noun. Thus, the number of men is very great, and it might require extraordinary means to completely count all the men at a given time; but there could not be an indefinite or infinite number of men at a given time.

If properties are posited as concrete entities, either it would be impossible to even begin counting the properties of an object or the counting would have to go on indefinitely. The truth of this disjunction may be brought out with the following example: suppose I have a desk and I want to count its properties. I attempt to start off the count by noting that the top surface of the desk is square. So far, so good; but suddenly, I reflect that my desk is square if and only if it is four-sided, equilateral, plane and equiangular. This puts me into a real quandary, because I do not know whether to count this as one property (that of being square), four properties (those of being four-sided, plane, equilateral and equiangular) or five properties (those of being square, four-sided, plane, equilateral and equiangular). So it appears that my attempt to count the properties of my desk has been halted from the start, because I do not know what to count as one property. For any count noun 'F,' in order to (even begin to) count F's, I must know what counts as one F.
Now suppose that I just decide that my desk has five properties in virtue of being square, on the grounds that the analysis which put me in my initial quandary resulted in five different properties. I am now committed to a program of analyzing every composite property that my desk has and adding together the results of each level of analysis. My next step is to break down the four properties which my desk has in virtue of being square into their constituent sub-properties. The question to ask at this point is whether this program has any sort of predictable terminus. The only way in which it could be for there to exist some ultimately simple properties, themselves irreducible to simpler constituent properties and to which every composite property reduces. Now I see no reason at all to believe that there are any such ultimately simple properties. Thus, we are stranded with the view that my desk has indefinitely many properties just in virtue of its being square (not to mention any of its other properties); and I regard it as conceptually unintelligible to say that there is an indefinite number of concrete entities of a given kind.

To adopt Quine's apt metaphor, the realm of properties is an ontological slum, a breeding ground for disorderly elements; hence, it has no place in a temperate system of existing entities. Since the question "How many properties does a have?" has been shown to lead to a meaningless response, it would seem to be just as illegitimate
to speak of "all the properties of a" as it is to ask that question. Because LLII states that a and b are identical only if all the properties of a are also the properties of b and conversely, we have at hand a very good reason for rejecting this formulation of Leibniz's Law.

The only reply for someone who would continue to defend the existence of properties (and, implicitly, the possibility of there being a criterion of identity for properties) is to say that properties are abstract entities rather than concrete entities. Abstract entities would seem to be exempted from the requirement noted for concrete entities: that there be a definite, finite number of them for any given kind. Classes and numbers may be cited as examples of abstract entities which do not, and indeed could not, meet this requirement. My rejoinder would begin with an attempt to distinguish abstract and concrete entities: roughly abstract entities do not exist in the natural world and do not have spatio-temporal characteristics, while concrete entities do. If this is acceptable as far as it goes, I find something radically wrong with the claim that properties (on the assumption that they exist) are abstract entities. Only an unregenerate platonist would say that properties do not exist in the world but rather in some transcendent realm; this would be to say that while my desk exists in the world, the squareness of my desk does not. Furthermore, I can surely locate the squareness of my desk within some spatial region;
and if my desk is square between times $t_1$ and $t_2$, the property in question will be bounded by those temporal confines. So I conclude that properties cannot be abstract entities in the platonistic sense, nor do I think that anyone would be seriously tempted by this view.

Perhaps it will be said that properties are abstract entities in a conceptualistic sense; they exist as ideas in the mind. This may or may not be a plausible view of numbers and classes, but I do not see how it would work for properties at all. Without having to countenance the existence of properties myself, I can know what someone means by saying that object $a$ has property $F$; but if someone claimed that object $a$ has idea $F$, he would deserve to be met with an uncomprehending stare -- unless, of course, object $a$ is a person or a mind, in which case there would be no property attribution. In any case, I should hope that the debate over the existence of properties comes to more than the issue of whether or not they exist in the mind.

Let us take stock of the argument up to this point. I submit that if properties exist at all, they are concrete entities; because they do not fare well as abstract entities under either a platonistic or a conceptualistic interpretation. But if properties exist as concrete entities, 1) it should be possible at least to begin counting them and 2) there should be a definite, finite
number of them. It is not clear to me that 1) holds; but even if it does, 2) does not -- unless the apparently unsupportable assumption that there are ultimately simple properties also holds. Therefore, properties do not exist as concrete entities either, and it is fair to say that they do not exist at all. The possible falsity of 1) and the certain falsity of 2) are merely symptomatic of the fact that criteria of identity for properties are not available. And I am with Quine on the point of refusing to posit entities for which no criterion of identity is possible.

The whole point of this argument is to adduce grounds for preferring LLI over LLII, and thus far LLII has been proven guilty by association with properties. It is now appropriate to argue in a more positive way for LLI, and I shall do so by showing that there are not any difficulties with predicates analogous to the difficulties with properties just reviewed. The saving grace of predicates comes in virtue of the fact that predicates are contextually constituted within the framework of a definite language. There is no such thing as a predicate in isolation from a particular language. It is characteristic of a language to be definite on account of its finite vocabulary of terms and the semantic rules which govern the relations among its terms.

One of the first steps in formalizing a given language is to determine its ideology: the finite list
of all its predicate expressions. To do so, one would have to assume that there are adequate criteria of identity for predicates, but this assumption is not a trouble-making one. To avoid ambiguity one would want to represent every different predicate by a different expression-type. This, in turn, presupposes that there is a criterion of identity for expression-types, but it appears that equiformity will be a satisfactory one. With a definite ideology on hand, then, it makes perfect sense within the context of a given language to ask how many predicates are true of object a. In response to this question, one would simply take the ideology of the language and count up all the predicates therein which are true of a. If there are composite predicates in the language, as the predicate 'α is square' would be in a language which also contained the predicates 'α is four-sided,' 'α is plane,' 'α is equilateral' and 'α is equiangular,' they are related by semantic rules to simpler predicates. Since the ideology of a language is, ex hypothesi, finite, there is a predictable terminus to the analysis of composite predicates; this analysis would end when one came to the primitive, basic predicates of the ideology. Thus, in a language for which 'α is four-sided,' 'α is plane,' 'α is equilateral,' and 'α is equiangular' are simple predicates, related by semantic rules to the composite predicate 'α is square,' there would be five predicates true of my desk in virtue of the fact that it is square. This contrasts sharply with the case
of properties, of which there is no definite number; because there do not seem to be any primitive, simple properties.

LLI is preferable to LLII, then, because it makes sense to speak of whatever is true of \(a\) being also true of \(b\), and conversely, at least within the context of a given language; whereas it does not make sense to speak of \(a\) and \(b\) having all their properties in common. Yet there may remain some real misgivings about LLI, insofar as it makes indiscernibility dependent upon the ideologi- cal resources of particular languages. It may be felt that Leibniz's Law cannot be a linguistically relative principle. It is around this issue that the following section is centered.
Section D: LLI and Semantic Paradox

One of Geach's primary arguments for the relativity of identity occurs within the context of a more general argument for the relativity of LLI.\(^{28}\) Although the difference between relative and absolute identity has not yet been made clear, a crucial step toward this end may be taken by examining the difference between a relative and absolute interpretation of LLI and the consequences of these respective interpretations. For Geach, there is an important link from the relativity of LLI to the relativity of identity, so this section should be viewed as the foundation for the forthcoming defense of relative identity.

Even if it is granted that there are no predicates apart from some language or theory, it may seem possible to interpret LLI in either an absolute or a relative manner. Geach states that an absolute identity theorist would have to read LLI absolutely, and he voices the view of his opponent in the following way:

\[
\text{For real identity, though...we need not bring in the ideology of a definite theory } T. \text{ For real identity, whatever is true of something identical with } a \text{ is true of } a, \text{ regardless of which theory this can be expressed in}....\]^{29}

Let us attempt to state precisely what the absolute identity theorist is saying here. One way of reading LLI absolutely would be to claim that every possible predicate in every possible language or theory is true of \(a\) if true of \(b\), and conversely, if \(a\) is identical with \(b\).
Although this reading of LLI may be acceptable to some, the notion of a (merely) possible predicate in a language or theory may give trouble to others. On most accounts, a predicate is a term which actually occurs in a language or theory, not one which could have occurred. Respecting this convention, a second absolute formulation of LLI could be ventured: if \( a \) is identical with \( b \), then every actual predicate in every possible language is true of \( a \) if true of \( b \), and conversely. But the idea of a (merely) possible language would not seem to be any more acceptable than the idea of a (merely) possible predicate, so there is little to be gained by this second formulation. I suspect that a great deal of work would have to be done on the ontological status of languages for either of these formulations of LLI to be made intelligible, and I am not prepared to initiate such an enterprise.

It remains, then, for someone who would formulate LLI in an absolute way to claim that if \( a \) is identical with \( b \), then whatever actual predicates in any actual languages or theories are true of \( a \) are also true of \( b \), and conversely. 'Whatever is true of \( a \)' is taken to refer to all actual predicates in all actual languages or theories which are true of \( a \); in this way, LLI is not made relative to any particular language or theory. Is this an acceptable formulation of LLI?

According to Geach, it is not.

But if we wish to talk this way we shall soon fall into contradictions; such unrestrained
language about 'whatever is true of a' not made relative to the definite ideology of theory T, will land us in such notorious paradoxes as Grelling's and Richard's.30

After this cryptic reply one may well wonder how the semantic paradoxes are supposed to follow from speaking unrestrictedly about whatever is true of a. Feldman31 explores one possible connection, albeit tenuous, as he admits. To summarize his result, he begins with the following unrestricted version of LL:

\[(1) \ (x)(y) \left[ (x = y) \supset (F)(Fx \equiv Fy) \right] \]

He then instantiates (1) with respect to some self-identical object a:

\[(2) \ a = a \supset (F)(Fa \equiv Fa) \]

Detaching the biconditional in the consequent of (2) he gets:

\[(3) \ a = a \supset (F)(Fa \supset Fa) \]

which, by the rule of conditional-disjunction, produces the trivial truth:

\[(4) \ a = a \supset (F)(\sim Fa \lor Fa) \]

The "tenuous" connection which produces Grelling's paradox from (4) is this: the assumption that if it is not the case that F is true of a, then F is false of a. This, of course, is not a sound assumption (F may be neither true nor false of a), but Feldman thinks that this is the only possible way of deriving the paradox from LL. By adopting it, (4) becomes something like:

\[(5) \ a = a \supset \text{for any predicable whatever, } F, \]
either F is true of a or F is false of a.

Grelling's paradox may then be generated from (5) by substituting the self-identical word 'heterological' for 'a' and the predicable 'heterological' for 'F'.

One tack taken to avoid the paradox is to deny (5) in its present, unrestricted form. In particular, there is at least one F, namely 'heterological,' that is neither true nor false of at least one a, namely 'heterological.' This example might even be set into the context of other such examples: dogs are neither odd nor even, and it is neither true nor false of words that they are in the key of B flat minor. Feldman appears to think that by denying (5) in this fashion he has made the expression 'whatever is true of a' innocuously relative to a definite ideology. But in fact that restrictions desirable on (4) have very little to do with the way Geach wants to restrict Leibniz's Law, and Geach recognizes this in a reply to Feldman. 32

This solution to Grelling's paradox does not involve expelling 'heterological' from some ideology. Furthermore, if 'heterological' is neither true nor false of a, then it cannot possibly be among the predicates denoted by 'whatever is true of a.'

Thus, the connection, if any, between speaking of 'whatever is true of a' without any reference to a definite ideology and the semantic paradoxes must lie elsewhere. In the above cited reply to Feldman, Geach is a bit more explicit about where to look for this connection:
...the classical solution to the paradoxes is to say that 'is true of' is to be understood as defined for the predicables of some definite language L, but as itself belonging not to the vocabulary of L, but to that of a metalanguage M. This would imply that the thesis just given \( x = y \) iff whatever is true of x is true of y and conversely, connecting 'is identical with' and 'is true of' indeed is unintelligible as it stands, for lack of necessary relativizations.33

Reference is here made to a second way of circumventing the semantic paradoxes, the way that emerges from Tarskian semantics. In seeking a definition of truth that is "materially adequate and formally correct," Tarski claims that 'true' applies primarily to asserted ("declarative") sentences.34 When 'true' qualifies other things like beliefs, objects, propositions, it does so only in an ambiguous way. Since sentences are linguistic entities, truth is a language-dependent notion: this is merely to say that if there were no languages, there would be no sentences, and if there were no sentences, there would be no truth. 'Truth' is further characterized by Tarski as a peculiarly semantic term, semantics being the study of relations between expressions and the objects denoted by them. In the case of truth, the apposite expressions are sentences, and the objects denoted by them are existing states of affairs. As such the semantic paradoxes have bearing on the definition of truth. Tarski maintains that these paradoxes arise from attempts to define truth within a semantically closed language, i.e., one which contains not only sentences which are true but also 'true'
itself. For example, any materially adequate definition of truth must adhere to the following schema (for any sentence P in some language):

'P' is a true sentence iff P.

But a paradox akin to that of the liar results when P is instantiated by the following sentence:

This very sentence is a false sentence.

By substituting 'P' for 'this very sentence' one obtains

'P' is a true sentence iff 'P' is a false sentence.

Tarski's method for resolving the paradox is to draw a distinction between the object language L and its metalanguage M with which L is "talked about." The above contradiction stands only if this distinction is not observed and a semantically closed language is employed. For in that case its explicit form would be:

'P' is a true sentence of L iff 'P' is a false sentence of L.

By invoking the metalanguage/object language dichotomy, Tarski categorically rejects the possibility that "'P' is a true sentence" is a sentence of L. Rather, it is a sentence of M, in which the sentences of L are not used but only mentioned. Since the name of a sentence cannot be true or false, but only the sentence itself, the liar paradox no longer threatens Tarski's definition of truth.

By the same token,

'heterological' is heterological
is not a sentence of L but rather of M, because 'hetero-
logical' means 'not true of itself' and truth is a semantic
notion.

With this methodology at his disposal, Tarski
goes on to characterize truth in terms of the satisfaction
of sentence schemas by all sequences. A proper discussion
of Tarski's semantic theory of truth would wander too far
from my main line of reasoning. So I shall simply maintain
that if Tarski's theory is correct on its essential points,
it is indeed inappropriate to speak of 'whatever is true
of a' apart from reference to some definite, particular
ideology. The absolute formulation of LLI must be rejected
for just this reason if the semantic paradoxes are to be
circumvented. In its place must go a suitably relativized
formulation:

if a is identical with b, then whatever
predicates within some particular ideology
are true of a are also true of b, and
conversely.

A symbolic form of LLI will eventually be needed, and I
propose the following one:

\[ a = b \supset (\phi) \ (\phi a \equiv \phi b), \]

where it is understood that, in any given application or
instance of LLI, the permissible substituends for '\( \phi \)'
are the predicate-letters of some definite, particular
ideology.\(^{35}\)

Thus ends the relativization of Leibniz's Law,
coextensive with my attempt to distinguish the various possible interpretations of this principle and find the best one. The next chapter will deal with Geach's argument from the relativity of LLI to the relativity of identity. Lest it be thought that this deduction is too obvious for much discussion, let it be noted that Quine accepts a relativized version of LLI but denies the relativity of identity; his view on the matter will be presented in due course.
Chapter II: The R Thesis, Genesis and Development

Section A: Introduction

The R thesis is a central doctrine in Geach's theory of relative identity, and, when taken in the proper way, may be seen as an essential and definitive aspect of relative identity. In spite of this fact, there exists considerable confusion over what the R thesis states and what it amounts to in terms of philosophical consequences. This confusion may be correctly traced to Geach himself, because an earlier and later version of R may be found in Geach's writings on relative identity. There are considerable differences between the two versions, and the later version is much more plausible and much more adequately defended by Geach than the earlier version. My aim in this chapter is to carefully distinguish the two versions of R, with an eye to the sorts of examples peculiar to each. I shall argue that there are serious problems with examples suggested by the earlier version of R (hereafter RI); whereas the examples associated with the later version of R (hereafter RII) may be acceptable, given a certain background. This background is the interpretation of LLI just defended, which will become extremely important for the line of thought leading up to RII.

One preliminary for the discussion of R has to be dealt with at this point. In keeping with Geach's convention, expressions of identity will henceforth be
modified by a covering sortal (normally a count noun).¹

On Geach's view, it does not make complete sense to say
merely that a is the same as b; upon hearing such a claim,
one is obliged to inquire 'the same what?' and is owed a
reply of the form 'a is the same F as b,' where 'F' is a
count noun/covering sortal. It is a polemical point that
not expressions of identity not of this form are logically
complete, and I shall assess the arguments for this point
in a later chapter. But I should think it uncontroversial
that any, or most any, expression of identity can be put
into this form. This should be no stumbling-block for an
absolute identity theorist, because he can always regard
the expression 'a is an F, b is an F, and a is identical
with b.'² One does, of course, have to assume that every
thing is of some particular kind (i.e., there is no thing
to which no count noun or sortal applies); but again, it
should not be too difficult to swallow this assumption.
Allowing that all (or most) expressions of identity can
be sortally modified is not a commitment to relative
identity.
Section B: RI

Geach first hints at the relativity of identity in Reference and Generality (1962), where the following principle is espoused:

RI: It is logically possible that a is the same F as b but not the same G as b.

RI is clearly admissible on the absolute view of identity; for if the sortally modified statements of identity contained therein are analysed out in the manner just suggested, the contradiction 'a = b · a ≠ b' is yielded. Since this analysis is not possible on the relative view of identity, this objection carries no weight from Geach's point of view. It merely serves to highlight one important difference between the two views of identity.

Despite its contentious nature, Geach never bothers to argue for RI. Instead, he contents himself with the offering of a couple of examples:

(1) "The same F" does not express a possible way of judging as to identity for all interpretations of "F"...we can speak of the same gold as being first a statue and then a great number of coins...3

(2) On my own view of identity I could not object in principle to different A's being one and the same B....different official personages may be one and the same man. 4

The reader is left to do with these examples what he can, so let us see what can be done with them. The first problem with example (1) is that 'gold' is a mass term, but Geach
later states that he meant 'the same parcel of gold' by 'the same gold.' With this clarification, example (1) may be put into the canonical form of RI by assigning referents to 'a' and 'b':

a: the statue
b: the collection of coins.

Two cases of RI would then follow from example (1):

- a is the same parcel of gold as b but not the same statue as b.
- a is the same gold as b but not the same collection of coins as b.

As Geach uses the term, a parcel of gold need not be continuous and undivided; so these possibilities would be actualized, Geach claims, if someone melted down a gold statue and minted some coins with the resulting gold.

Nevertheless, it is not likely that this occurrence would be described in the manner suggested by Geach's example. For one thing, an expression of the form 'a is not the same G as b' would normally imply that a and b are distinct G's. But in the cases generated by this example, this is not so. Here, 'a is not the same statue as b' does not mean that there are two distinct statues, a and b; the same point applies to 'a is not the same collection of coins as b.' This may be a minor difficulty, but at least it shows that Geach is using this expression in a non-standard way.

Of more importance is the fact that 'a is the same
parcel of gold as \( b' \) does not have to be interpreted as a statement of identity at all. A more natural interpretation, suggested by Wiggins, is that it is a statement of material constitution: '\( a \) is made of the same parcel of gold as \( b \).' Some essentialist considerations could easily be deployed against its being a statement of identity (and this should be of some concern to Geach, nominal essentialist that he is). For there to be identity over time between the statue and the collection of coins, the changes undergone by the statue should not involve the falsification of any of its essential predicates; otherwise, the statue goes out of existence and is not identical with anything which succeeds it. It is reasonably clear that being melted down is not a change which a statue could sustain, qua statue. Geach is not prepared to say that mere spatio-temporal continuity is sufficient for identity, so the status of '\( a \) is the same parcel of gold as \( b \)' as an identity statement is very tenuous indeed. Since instances of RI have to be identity statements in order to be relevant to the relativizing of identity, I conclude that example (1) does not demonstrate the relativity of identity.

An attempt to salvage example (1) might proceed by assigning different referents to '\( a \)' and '\( b \)' and making use of a distinction, employed by both Wiggins and Geach, between a phase sortal and a substance sortal. A
phase sortal may be true of something for part of its existence, while a substance sortal must be true of something throughout its existence. A phase sortal is said to restrict a substance sortal by being true of something denoted by the substance sortal for part of its existence. Thus 'boy' is a phase sortal with respect to 'human being,' and 'boy' restricts 'human being.' Wiggins argues at length that every phase sortal restricts some substance sortal; this argument is meant to rule out the case of something continuing to exist in virtue of being qualified by a mere succession of phase sortals. When a succession of phase sortals is truly applicable to a continuent, there is an underlying substance sortal true of it all along, making this succession possible.

Adapting this doctrine to example (1), we might view 'statue' and 'collection of coins' as phase sortals, restricting the substance sortal 'parcel of gold.' This would require the referents of 'a' and 'b' to be construed as follows:

\[ a: \textit{the parcel of gold from } t_1 \text{ to } t_2 \]
\[ b: \textit{the parcel of gold from } t_3 \text{ to } t_4, \]
\[ t_1 - t_2 \text{ being the phase of gold during which it is a statue, and } t_3 - t_4 \text{ being the phase of the gold during which it is a collection of coins. Again, the cases of relative identity generated by example (1) might be described in the following way:} \]
a is the same parcel of gold as b, but not the same statue as b.

a is the same parcel of gold as b but not the same collection of coins as b.

However, there is a serious drawback to reading example (1) in this way. As a rule, if phase sortal F restricts substance sortal G, one should be able to infer that a is a G from the fact that a is an F. One can infer that John is a human being from the fact that John is a boy just because the phase sortal 'boy' restricts the substance sortal 'human being.' What counts against the view that 'statue' and 'collection of coins' are phase sortals which restrict the substance sortal 'parcel of gold' is that one cannot infer that something is a parcel of gold from the fact that it is a statue (it may be a marble statue) -- nor can one do so from the fact that it is a collection of coins (the coins may be copper). So this way of construing example (1) founders as well.

Example (2) might seem to provide a case in which a given man, Jones, is both the mayor of a town and the president of a bank. Thus,

The mayor of the town is the same man as the president of the bank, but the mayor of the town is not the same official personage as the president of the bank.

This case is made difficult to analyze by the presence of definite descriptions and by the obscurity of the idea
of an "official personage." On the first score, we might begin by asking whether the definite descriptions are being used referentially or attributively. If they are being used referentially, they should be replaceable by the proper name of the individual to which reference is being made. However, making this substitution would seem effectively to undermine the example:

*Jones is the same man as Jones, but Jones is not the same official personage as Jones.

If the definite descriptions are being used attributively, it is not clear that either conjunct is an identity statement. Most writers on identity agree that the terms flanking the identity sign have to be referential, because a subject-predicate analysis works best when this is not the case. Because of these complications, Geach insists that the theory of relative identity applies only to statements of identity the terms of which are names, and he attacks Feldman for proposing an example of relative identity which contains a definite description.

Perhaps the best thing to do at this point is to construct another case which avoids these problems. It would seem consistent with Geach's intentions to suggest one in which a company has two vice-presidents, Smith and Brown. (It is essential to this case that the job-description apply to both positions.) Of this case we might be able to claim that
Smith is the same official personage as Brown but not the same man as Brown.

The most acute question now is: what sort of entity is an official personage? It is natural to construe an official personage simply as a man who has some official position. This would be to regard 'official personage' as a phase sortal restricting the substance sortal 'man'; a man could lose his official status without ceasing to exist. On this interpretation, however, 'is the same official personage as' would be amenable to analysis into 'is the same man as and is an official personage'; just as, according to Geach, 'is the same Greek as' goes over into 'is the same man as and is Greek.' If our case were subjected to this analysis, a contradiction would result:

Smith is the same man as Brown and is an official personage, but Smith is not the same man as Brown.

Thus, Geach cannot be thinking of official personages as simply men who occupy official positions. He must have something more exotic in mind: either a collective entity or an entity-type. However, neither of these possibilities works out very well; if an official personage is a collective entity, then neither Smith nor Brown is an official personage, in which case it is very hard to see how they could be the same official personage. If an official personage is an entity-type, then the case would have to
be spelled out along the following lines:

Smith is the same kind of official personage as Brown but not the same man as Brown.

But the first conjunct is not, in any straightforward sense, a claim of identity between Smith and Brown. Thus, the second example of relative identity collapses along with the first.

The evidence against RI has been presented of necessity on a fairly intuitive level, in keeping with the way in which Geach himself presents the thesis. He blunders by attempting to support an outrageous claim with a couple of ill-formed examples, both of which can be readily dismissed. Generally speaking, examples can be used to make a point only after the point has been argued in some systematic fashion. Without the benefit of background evidence, clues for the interpretation of examples of RI are absent: it then should be hardly surprising that they cannot be plausibly interpreted.

Fortunately for the theory of relative identity, the defense of R is not left at this philosophically vacuous level. Geach later makes good on the defects of his first presentation of R, arguing in a sophisticated and closely knit way for a second version of R. The defense of RII is the central theme of the section to follow.
Section C: RII

The inadequacies of RI must have been apparent to Geach, for his article "Identity"\textsuperscript{15} was published in the same year (1967) as Wiggins' monography \textit{Identity and Spatio-Temporal Continuity} -- where RI is heavily attacked and where Geach's "searching criticisms"\textsuperscript{16} of early drafts are acknowledged. Geach's article is most plausibly viewed as providing the machinery for a reply to the sorts of objections to RI just reviewed. The reply proceeds partly by way of refining the R thesis, partly by way of constructing a theoretical foundation for the refined version of R, and partly by way of generating some new examples of R.

The later version of R which Geach defends in his article could be expressed in the following way:

RII: The fact that \( a \) is the same \( F \) as \( b \) does not entail (for any \( G \) whatever) that \( a \) is the same \( G \) as \( b \).

For the defense of RII Geach introduces the technical notion of an I-predicable. An I-predicable is formally defined as a two-place predicatable in the ideology of some theory \( T \) which is true of \( a \) and \( b \) just in case every other predicatable in theory \( T \) is either true of \( a \) and true of \( b \) or not true of \( a \) and not true of \( b \).\textsuperscript{17} According to Geach, multi-place predicables can be reduced to one-place predicables by the device of replacing every
variable except one with a constant. Thus, when an I-predicable is true of \(a\) and \(b\), this indicates the satisfaction of Leibniz's Law by \(a\) and \(b\) within the context of theory \(T\): this is to say that \(a\) and \(b\) are indiscernible in the ideology of \(T\).

The first thing to notice about I-predicables is that they are defined in relation to theories, not languages. Thus far I have minimized the difference between theories and languages, but now it is necessary to distinguish the two with care.

Basically a theory is composed of a set of sentences drawn from a background language which are the claims made by the theory. A well-formed theory differs from its background language in two important respects. 1) Assuming that a theory must be consistent with itself, it does not contain the negations of the sentences which comprise its claims. A language, of course, includes the negation of every one of its sentences. 2) A theory is said to be ontologically committed in a way that a language is not. There is no definite ontology implied by the referring expressions of the English language. But it is characteristic of theories that a domain of entities is selected for discussion: these entities are what a theory is about, the things with reference to which claims are made. One can object to a theory for its commitment to what are regarded as dubious or unworthy entities, but one cannot object to a language for that reason. Mere
languages are ontologically neutral.

With this distinction in mind, why should Geach insist that I-predicables be defined in relation to theories rather than languages? The best answer to this question is that Geach is very interested in whether every claim of the form 'a is the same F as b' is a claim of identity, and in fact it is his role as a relative identity theorist to deny that this is the case. As we shall see, it is an important step in making this denial that ontological considerations be employed. Since languages have been characterized as being ontologically neutral, the means with which to determine whether a given claim is a claim of identity are not available within the context of a mere language.

A predicable, then, is an I-predicable in relation to some theory T and, when true of a and b, implies the satisfaction of Leibniz's Law by a and b within theory T. Leibniz's Law has thus far been shown to be relative to particular languages, so again it looks as though Geach is sliding from the concept of a language to the concept of a theory. To circumvent the consequences of this slide, I shall speak of the language L of theory T. To determine what the language of a given theory is, one need only examine the set of sentences comprising the claims of that theory. The language L of theory T is composed of all and only the terms which actually appear in the claims of T. In particular, the ideology of T will be identical
with the ideology of L: the same list of predicates will constitute both. In this way, if Leibniz's Law is relativized to the ideology of language L, it will simultaneously be relativized to the ideology of theory T.

The next question Geach raises is whether an I-predicable expresses "strict, absolute, unqualified identity." Geach's response is that it need not do so. The claim that an I-predicable must express absolute identity would have to be based on an interpretation of Leibniz's Law which has already been shown to generate semantic paradox. If there is no such thing as absolute indiscernibility, Leibniz's Law cannot be read in an absolute way; and hence, a predicable which indicates the satisfaction of Leibniz's Law cannot express absolute indiscernibility, but only indiscernibility within some particular ideology.

The proof which clinches the relativity of identity for Geach is that a predicable which is an I-predicable in one theory T need not be an I-predicable in some other theory T':

Objects that are indiscernible when we are confined to the ideology of T may perfectly well be discernible in the ideology of a theory T' of which T is a fragment, given that T' contains more predicables than T. Of course this means that a predicable of T that is an I-predicable in T is no longer an I-predicable with regard to T'; there is no logical difficulty about this, since the allowable substitutions for the schematic letter ["ϕ"] in schema (1) will no longer be the same in T' as they were in T.21
Geach's "schema (1)" is equivalent to my LLI:
\[ a = b \supset (\phi)(\phi a \equiv \phi b). \]

The point here is that the allowable substitutions for '\( \phi \)' range more widely in theory \( T' \) than they do in \( T \), because \( T' \) contains more predicables than \( T \). If the wider ideological range of \( T' \) includes just one predicable which is true of \( a \) and not true of \( b \), or vice versa, it is quite possible that \( a \) and \( b \) are related by a predicable which is an \( I \)-predicable in theory \( T \) and not an \( I \)-predicable in the enlarged, more discriminatory theory \( T' \).

Now if indiscernibility is accepted as a necessary condition for identity, and if indiscernibility has been shown to be an ideologically relative notion, then identity is also subject to at least that much relativity.

Under certain circumstances, Geach believes that an \( I \)-predicable can express not only indiscernibility relative to some ideology (which it does by definition) but also identity relative to some theory. These circumstances must be described with particular attention to two things: 1) the form of the \( I \)-predicable and 2) the ontology of the relevant theory. With regard to the former, it has already been noted that, in Geach's theory of relative identity, every well-formed statement of identity must have the structure: \( a \) is the same \( F \) as \( b \). Thus, for an \( I \)-predicable to express a relation of relative identity, it must have the structure: '\( \alpha \) is the same \( F \) as \( \beta \)'. With regard to the latter, let us turn immediately
to the examples of RII offered by Geach; for there is no simple way to summarize the bearing of a theory's ontology upon the capacity of its I-predicables to express relative identity.

Geach lays down two parallel examples with which to illustrate his abstract arguments for RII.23

1 (a) $T$ and $T'$ are ontologically committed to words (expressions of a given natural language) and the range of the quantifiers in both is over token words.

(b) The ideology of $T$ cannot distinguish two word tokens of the same word type. Thus '$\alpha$ is the same word type as $\beta$' is an I-predicable in $T$; '$\alpha$ is equiform with $\beta$' is as well, given that equiformity is the standard of identity among type words.

(c) The ideology of $T'$ can distinguish word tokens of the same word type. Thus '$\alpha$ is the same word type as $\beta$' is not an I-predicable in $T'$, because there are predicables in $T'$ which are true of a given word token but not true of another of the same type, and conversely.

(d) Therefore, the fact that $a$ is the same word type as $b$ does not entail that $a$ is the same word token as $b$.

2 (a) $T$ and $T'$ are ontologically committed to men, and the quantifiers of both range over individual men.
(b) The ideology of T cannot distinguish between two men of the same surname. Thus 'α is the same surman as β' is an I-predicable of T, when the criterion of being the same surman is having the same surname.

(c) The ideology of T' can distinguish two men with the same surname. Thus 'α is the same surman as β' is not an I-predicable in T', because there are predicables in T' which are true of a given man but not true of another man with the same surname.

(d) Therefore, the fact that α is the same surman as β does not entail that α is the same man as β.

In these examples, 'α is the same word type as β' and 'α is the same surman as β' are classified by Geach as claims of relative identity: they are relative because they are only claims of identity within theory T. They cannot be claims of identity in theory T', for the predicables from which they are constructed are not I-predicables in theory T'.

In spite of what Geach maintains, it may not be obvious that these claims are claims of identity at all. However, they do not seem to be eliminable as claims involving confusions over material constitution or phase and substance sortals, as were the purported examples of
relative identity generated by RI. In the section to follow, I shall explore some of the difficulties with these examples of relative identity and argue that these difficulties are not insurmountable.
Section D: Controversies over the Examples of RII

To Geach's critics the most troublesome aspect of these examples has been an apparent ambiguity for the reference of terms like 'a' and 'b' in statements like 'a is the same word type as b but not the same word token' and 'a is the same surman as b but not the same man.' Variations on this standard objection have been duly trotted out by Wiggins, Perry, Nelson, and Stevenson. More specifically, let us consider Perry's challenge to example (1). If we have the following words in a box:

\[
\begin{array}{ccc}
a. & \text{Bull} & b. \text{ Bull} & c. \text{ Cow}
\end{array}
\]

and we are asked to count the words in the box, the ambiguity of the word 'word' allows for two possible responses. It would be natural to say that there are three token words in the box but only two type words in the box. Thus, when Geach says things like \( a \) is the same type word as \( b \) but not the same token word, he illicitly capitalizes upon this same ambiguity. All that is necessary to dismiss this example is to ask whether 'a' and 'b' refer to type words or token words. If their referents are type words, then \( a \) can be the same type word as \( b \); but it is trivially true that \( a \) cannot be the same token word as \( b \) because neither \( a \) nor \( b \) are token words at all. What if 'a' and 'b' refer instead to token words? In that case \( a \) could not be the same word
type as \( b \), because neither \( a \) nor \( b \) are word types; although of course \( a \) is not the same word token as \( b \).

This same line of thought can be extended to example (2). To undertake a count of the men of Leeds one would have to know whether a surman or an individual man counts as one man. It might be true that surman \( a \) is the same surman as surman \( b \) but individual man \( a \) is not the same man as individual man \( b \). In that case the terms '\( a \)' and '\( b \)' would be referentially equivocal, while univocity of reference for '\( a \)' and '\( b \)' would jeopardize the example. It could not be true that individual man \( a \) is the same surman as \( b \), because neither \( a \) nor \( b \) are surmen. On the other hand, 'surman \( a \) is not the same man as surman \( b \)' is true but not because \( a \) and \( b \) are distinct men; instead, \( a \) and \( b \) are not even men in the first place.

It is especially surprising, continue the critics, that Geach should be caught with such an ambiguity, given his stance on how reference is achieved with proper names. This stance may be located somewhere in between the treatment of proper names as disguised definite descriptions in Frege, Russell, Searle, and Quine and their entire lack of connotation according to Locke, Mill, Donellan and Kripke. Geach argues\(^{28} \) that every proper name is associated with a general term which gives it a sense but includes no individual peculiarities of its
bearer. This general term is called the "nominal essence" of the name. Why should one take the nominal essence position on names? Geach replies:

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 on applying it to one and the same man....The sense of "Churchill" does include: being a man.29

Regardless of whether this account of names is correct or not, Geach's critics are certainly not unfair in using it to defend their right to questions like: do 'a' and 'b' refer to type words or token words? For this is merely to request that the nominal essence of 'a' and 'b' be made explicit, and on Geach's view no user of these names would be unable to comply.

Two ways of replying to this objection are open to the relative identity theorist. In the first place, the claim of Perry and others that 'a' and 'b' are referentially ambiguous is just false for RII. However, in showing the falsity of that claim, a problematic aspect of Geach's conception of the ontology of a theory is exposed. Geach makes it explicit that the quantifiers of both T and T' range over token words (in example 1) and individual men (in example 2), thereby rendering gratuitous the charge of referential ambiguity. But in so determining the
reference of 'a' and 'b,' Geach takes responsibility for making intelligible as a claim of identity a statement like 'Token word a is the same type word as token word b.' Perry introduces a criterion according to which such statements are not identity statements (though they may be equivalent to other identity statements). In general, he says that not every statement of the form 'a is the same F as b' is a claim of identity between a and b, and the way to recognize one that is not is to see whether it could be reformulated as 'a is of the same F as b.'

If one says 'John is the same age as Jim,' one does not assert the identity of John and Jim; and what one means is 'John is of the same age as Jim.' 'My chair is the same color as your chair' can be true without my chair being identical with your chair; it need only be true that my chair is of the same color as yours. Likewise, 'Token word a is the same type word as token word b' should be rewritten as 'Token word a is of the same type word as token word b', in which case it is no longer an identity statement. Genuine identity statements do not take the 'of' reconstruction: it makes no sense to say 'LBJ is of the same man as Lyndon Johnson.'

In reply to Perry, however, it must be said that his argument begs the question in favor of absolute identity. For the relative identity advocate, statements like 'John is the same age as Jim' and 'My chair is the same color
as your chair', could very well be statements of identity, depending on the ideology of the theory in which they are true. Insofar as Perry's 'of' construction criterion depends upon the supposition that they are not, it cannot be used as a neutral point of arbitration between absolute and relative theories of identity.

The failure of Perry's argument still does not do much for the dubious intelligibility of 'Token word a is the same type word as token word b.' The real problem with this statement is that the only theory in which it would be a statement of identity (for Geach) is one whose ideology is not sufficient to distinguish two word tokens of the same type. But such a theory is supposed to have an ontology of token words, and one would think that if a user of that theory could distinguish word tokens of different types, he could also distinguish word tokens of the same type. For the standard of individuation for word tokens has nothing to do with the types of those tokens: word tokens are either inscriptions or spoken sound which one can distinguish roughly by spatio-temporal criteria. With these criteria the process of distinguishing two word tokens of the same type would be no different from distinguishing two word tokens of different types.

To put this problem another way, recall the difference I drew between perceptual indiscernibility and the ideological indiscernibility connected with Leibniz's Law. The perceptual indiscernibility of a and b is a
matter of one's being able to tell (i.e., see, hear, feel, smell, taste) the difference between a and b. Ideological indiscernibility is independent of perceptual indiscernibility; it is a matter of one's theoretical resources being insufficient to say anything of a that one cannot say of b, and conversely. Now consider the case of someone P whose knowledge at a given time is represented by theory T in example (1): P is to be ignorant of all else except T. We can describe T from the vantage point of a background language and can compare T with other theories by altering its ideology and ontology, but P is derived of these benefits. The limits of T are the limits of P's knowledge: though he might suspect that there could be other predicates than those in the ideology of T, he would have no idea of what they could be. P entertains the idea of being existentially committed to the entities outside the ontology of T, but he has no particular grasp of what any such entity would be.

The difficulty is this. In virtue of being able to distinguish token words of different types, and in virtue of having an ontology of token words, one would think that P would have a general ability to distinguish any two token words, regardless of whether they are of the same word type or not. The reason for this is that the usual criteria for distinguishing token words are spatio-temporal: "This word token is written over here, while that one is written over there," "This one was
spoken at \( t_1 \), while that one was spoken at \( t_2 \)," etc. If we assume that these usual criteria enable \( P \) to both perceptually and ideologically distinguish token words, \( P \) ought then to be able to distinguish any two token words. This follows because the spatio-temporal means for distinguishing token words have \textit{nothing} to do with the types of which words are tokens. If \( P \) can spatio-temporally distinguish two token words of different types, nothing should prevent him from being able to spatio-temporally distinguish two token words of the same type. This means that the situation of \( P \) will have to be described in a somewhat different way.

Suppose we say that \( P \) can perceptually distinguish any two tokens, but the ideology of \( T \) just prevents him from saying anything different about two tokens of the same type. A couple of unusual assumptions will then have to be built into a description of \( P \)'s situation. In the first place, all spatio-temporal predicables will have to be removed from the ideology of \( T \) (assuming that two things cannot be in the same place at the same time). Regardless of how \( P \) perceptually distinguishes two tokens, he will not be able to \textit{say} anything about the difference between those two tokens that is of a spatio-temporal nature. He could only say of the difference between two word tokens of different types that they were of different types: he would have to ideologically distinguish any two word tokens \textit{via} their types. In the second place,
it would be necessary to specify that each distinct type word is exemplified by just one token word. The reason for this assumption is to retain any semblance at all of P's putative ability to ideologically distinguish word tokens. Word tokens of different types are now ideologically discernible to P only via the fact that they are of different types. This is such an indirect way of distinguishing word tokens that one is tempted to say that all P can really distinguish are word types. To say this would be justified if there were a plurality of word tokens of any given type. But if there is just one word token per word type (imagine a book in which no word token is repeated), one can still say that P can genuinely distinguish word tokens as well as word types. In saying something is of a distinct word type, he is also saying something of a particular, distinct word token.

Can the meaning of 'token word a is the same type word as token word b' be understood under this redescriptions of P? Perhaps, but the extremely contrived nature of the case makes it especially vulnerable to criticism. In the first place, if we assume that P's veil of ignorance is eventually lifted to a level of knowledge represented by T', this case would not even generate an example of RII. For by my second assumption a and b are the same token word as well as the same type word (there being only one token word per type word). The transition from T to T' would therefore not produce a case in which a is the same type word as b but not the same token word. In the
second place, it is hardly plausible to assume that, while under the limits of T, P genuinely has an ontology of token words. Token words are necessarily spatio-temporal, but I have found it necessary to exclude all spatio-temporal predicables from the ideology of T. Even with these cooked-up assumptions it is impossible to coherently describe the position of someone for whom token word \( a \) is the same type word as token word \( b \) in virtue of being limited in knowledge to theory T.

However, this whole first case (and the dangers to Geach's position that attend it) can be thrown out and replaced by a second type of case. The textual grounds for this move consist in a later, clarificatory statement by Geach in response to just this sort of misguided objection:

A theory may contain subtheories, but in each case the relation is the timeless set-theoretical relation of a class to its proper subclass. It is quite normal set-theoretic jargon to speak of obtaining one class from another by adding or omitting members; this jargon does not refer, as some critics seem to suppose, to acts of adding or omitting members, or even to events of members' coming to be added or removed....When I spoke of adding predicables to a theory my critics took me to be speaking of a development of knowledge; when I spoke of omitting predicables, this was taken to mean something like the 1984 situation, in which the vocabulary of Newspeak is being progressively impoverished by order of the Ministry of Truth. Since one critic spoke of "loss of knowledge" in this connection I fear even this degree of misunderstanding may have occurred.31
In other words, we are not to suppose that the knowledge of a user of T is restricted to the ontology, ideology and claims of T; and with this supposition goes the problem of trying to envision the situation of someone whose ontological commitments outstrip the power of his ideology. Instead, the hypothetical user of T has no less access to the background language of which his theory is composed than we do in describing his position. He therefore not only realizes the possibility of other ontologies and ideologies but can also name and interpret specific referential domains and predicables which are not a part of T. In particular, he is aware that there could be a predicable which distinguished word tokens of the same word type; but for whatever reasons, he has chosen to adopt a theory which identifies such tokens.

What motives could someone able to distinguish certain types of entities have for adopting a theory whose ideology restricts this ability by identifying them? I would think that heuristic and/or economical considerations could pull most persuasively toward the adoption of such a theory. As Zemach\textsuperscript{32} has pointed out, ontological parsimony is not the only kind of parsimony over which we should be concerned. If an ideologically simpler theory is more convenient for certain purposes and if the economy effected by it promises to yield insights more directly than a more sophisticated theory, therein are
at least some grounds for its adoption. These same grounds are those which urge the acceptance of (which is not necessarily to imply the belief in) certain heuristic fictions, and in many contexts it would be irrelevant to protest that one ought never to countenance anything less than completely true.

If this reply to Perry's charge of ambiguity is seen as unsatisfactory, there is another type of reply that is worth at least some mention. In defending RII Zemach⁴³ and Chapman⁴⁴ override Geach's clarification of the reference of 'a' and 'b' (to token words in example 1, to individual men in example 2) and simply grant the ambiguity of these terms. There are ways, however, to show that such ambiguity is not only harmless but also necessary. Zemach's argument for this conclusion is premised upon the account of underdetermination or open texture for empirical general terms found in Wittgenstein⁴⁵ and Waismann.⁴⁶ According to this account, the existence of uneliminable borderline cases makes it impossible to specify exact necessary and sufficient conditions for the satisfaction of such terms. The connection between underdetermination for general terms and underdetermination for singular terms is made by Geach's own doctrine of proper names and their nominal essences. That is, if empirical general terms are unavoidably underdetermined, and if the correct use of a name presupposes the knowledge of its nominal essence, then the reference of at least some
singular terms is similarly underdetermined. The situation with definite descriptions used referentially and demonstrative pronouns is no better: the former actually contain general terms while the latter always appeal (but sometimes implicitly) to general terms for the success of their reference as well. In summary, singular terms are no less open-textured than general terms.

The application of this thesis to Geach's first example of RII begins with the twofold supposition that the sortal 'word' is less determinate than the sortals 'type word' and 'token word' and that 'word' is the nominal essence of both 'a' and 'b.' In other words, 'a' and 'b' are to refer to just words in a way that is neutral between type words and token words as alternative referents. If this degree of referential underdetermination is possible, then it makes sense to say that a is the same type word as b but not the same token word.

The general version of R which Zemach accepts is this: for every term F, of m determination, there may be other terms G and H, of n determination, such that

\[(x) \ ((Gx \land Hx) \supset Fx) \land m \leq n \land (Fa \land Fb \land a = b \land a \neq b).^{37}\]

There are passages from Geach which might be read as being sympathetic to this line of thought. In one discussion of example \(1^{38}\) he introduces the "words in a particular volume on my bookshelves at Leeds" as though that designation involved an ontology of neither
type words nor token words. And in specifying what the
quantifiers of both theories range over in example 2,
he speaks loosely of the inhabitants of Leeds; one could
maintain that "inhabitant" is underdetermined with
respect to "man" and "surman" in such a way that an
inhabitant could be the same surman as another inhabitant
but not the same man.

Geach moreover believes that his view of identity
commits him to a certain amount of Quinean ontological
relativity. The grounds for this connection are that

We can never so specify what we are quantiﬁying over that we are secure against
an expansion of our vocabulary enabling
us to discriminate what formerly we could
not.... And if we list the things we are
quantifying over by name, one of these names
may turn out to be not a proper name but
a shared name, of objects we now can
discriminate but previously could not.
This suggests, after all, some justifica-
tion for Lesniewski's idea that proper
names and shared names be assigned to the
same syntactical category....

The inability to absolutely specify the entities
over which one quantifies chimes in nicely with the
underdetermination defense of Geach submitted by Zemach
and Chapman. Nevertheless, I cannot but remark that
this is the kind of help that Geach can do without. For
one thing, a crucial feature in the characterization of
relative identity is a method for precisely distinguishing
one theory from another. (Note parenthetically that this
fact may be formulated into an objection: the statement
of the theory of relative identity is self-stultifying,
because it involves theories which are absolutely identical with and different from each other). In particular, one of the criteria for saying whether theory T is different from theory T' is whether T and T' have different ontological commitments. The theories Geach does consider in his examples are very similar to each other, but their seemingly minor differences have enormous ramifications for the judgment of identity in each. Therefore, if Geach were to take a relativistic position on ontology, the sharp boundaries between theories that are needed to generate his examples of relative identity would fade and become indistinct.

The only consideration that might ameliorate this threat is one which relates the basis for precise differentiation between theories to their ideologies. In other words, one might argue that Geach could be an ontological relativist, because in relative identity the slight differences between theories which make for enormous changes in their judgments of identity are differences between the ideologies of those theories. As long as Geach keeps the lines between different ideologies absolutely drawn, he can be as much of an ontological relativist as he pleases. Indeed, insofar as identity is primarily an ontological concept, it would be inconsistent for him not to take a relativistic position on ontology. But this still does not improve the Zemach-Chapman defense of relative identity, because that
defense, following Quine, derives referential indeterminacy from indeterminacy of meaning.\footnote{40} The reason why singular terms are underdetermined is that general terms are open-textured. Geach sees this connection when he speaks of putting proper names and shared names in the same syntactical category. But the consequences of this connection are that one cannot be an ontological relativist without being an ideological relativist as well. And once ideological relativity is admitted, the theory of relative identity can no longer be formulated; because its formulation depends on their being general terms with fixed meanings that allow for very precise differentiations among various ideologies.

In the second place, the ontological relativity implied by the Zemach-Chapman argument, though it is derived in one way from Geach's theory of nominal essences for proper names, actually seems inconsistent in one way with that theory. The derivation begins with the premise that empirical general terms are open-textured and concludes that, given the nominal essence view of proper names, singular terms are no less underdetermined. The premise of this derivation, as we have seen, is antithetical to the theory of relative identity; because it undermines the ideological basis for distinguishing between different theories. I shall now exhibit grounds for saying that the conclusion of this derivation appears
to be equally antithetical to the theory of nominal essences, which is an important component of the theory of relative identity.

Zemach, recall, ventured that in example 1, 'word' could be the nominal essence of 'a' and 'b' in 'a is the same word type as b but not the same word token.' The words to which terms like 'a' and 'b' refer were to be words of no particular kind: they were to be necessarily neither type words nor token words but entities that could be either. The 'inhabitants' of Leeds have a similar status in example 2. But given the way Geach defines the nominal essence of a proper name, terms like 'word' or 'inhabitant' logically could not be nominal essences for 'a' and 'b'. For the characteristic feature of candidate nominal essences is that they be terms from the meaning of which a clear counting procedure emerges. The basis for this requirement is that the ability to correctly use a proper name to repeatedly refer to the same thing presupposes that the user be able to judge that thing to be the same over a period of time and through successive presentations. But one cannot simply judge that something is the same as it was: the same what must be answered with a count noun covering sortal which then becomes the nominal essence of the name. How do I know there is just one thing which I call 'John' over a period of time? Because that which I begin to
call John is the same man the next time I encounter him... and the same man later on...and the same man again, etc., and because the term 'man' provides a reasonably clear basis for counting men. This is not true of the terms 'word' and 'inhabitant' as Zemach understands them. Given the way 'word' and 'inhabitant' are defined it is obvious that they furnish no criteria for numerical identity and difference. So construed, it would be impossible to count simply the words in a volume or the inhabitants of Leeds. For this second reason, then, Geach has no business being tempted by an ontologically relativistic account of how 'a' and 'b' refer.

Nevertheless, a final and rather plausible rejoinder is available to someone seeking to defend the theory or relative identity with the Zemach-Chapman strategy. One could either say that Geach has superseded the nominal essence theory with his avowal of ontological relativism or modify the former to make it compatible with the latter. One might suspect that the nominal essence theory has been superseded by ontological relativism in Geach's own mind just because the former came out way back in 1956, was last defended in print by Geach in 1962 and has never been connected to the R thesis by Geach himself. So perhaps there is little point to holding the mature Geach to his youthful doctrine of nominal essences when there is some reason to believe that he would best regard it as best forgotten.

For other reasons this rejoinder is unsatisfactory,
the least of which is that Geach has never retracted
the theory of nominal essences. What is most problematic
about it is that Zemach and Chapman depend on Geach's
inclination toward nominal essences in arguing from the
underdetermination of general terms to the underdetermina-
tion of proper names. If an inconsistency between the R
thesis and the theory of nominal essences can be shown,
what is needed is a modification in the theory of nominal
essences; and it is not hard to see where this modification
must be made. Put simply, we should not suppose that the
nominal essence of a name supplies any absolute basis for
counting. Indeed, we should certainly not expect to be
able to count things absolutely if we accept the R thesis,
because of the way in which counting and identity are
so closely tied together. The correct use of a proper
name surely consists in being able to apply that name
repeatedly to the same thing, but the identity of that
thing is to be construed in a relative way.

There is still the difficulty that neutral words
or inhabitants cannot be counted, even if the R thesis
is granted. But this proposal for modifying the theory
of nominal essences is very much in line with Chapman's
suggestion that proper nouns have a multiple nominal
essence. Chapman interprets Geach's view of names in such
a way that one cannot single out one general term as the
nominal essence of a given name.41 This means that we
can jettison the troublemaking terms 'word' and 'inhabitant' which, until now, were seen as the nominal essences of 'a' and 'b' in examples 1 and 2, respectively. Instead, Chapman recommends openness to the possibility of nominal essence, involving different and even conflicting criteria of identity, for each proper name. The nominal essences for 'a' and 'b' could be both 'word type' and 'word token' in example 1 and both 'man' and 'surman' in example 2.

Chapman has a twofold argument for his recommendation. In the first place he charges that platonism is implied by tying a name down to just one sortal. This charge, however, can be viewed as little more than name-calling, especially in view of Geach's explicit rejection of Aristotelian essentialism (certainly a less extreme form of realism than "platonism"). In general, nominal essentialism has no metaphysical implications at all; it is simply a doctrine about what a person must suppose in order to be able to use a name correctly.

The second stage of Chapman's argument against unique nominal essences is more important. His main concern is to oppose "any a priori way of establishing just which predicables" can compose the nominal essence of a name. Such an a priori method, he believes,

...would preclude discovery that the thing falls under new concepts having somewhat different requirements as to identity built into them and this would
be inimical to intellectual advance.... The sense of a proper name must be 'inexact' in allowing for the possibility of new concepts being applicable to the object, and changes in the object referred to will be reflected by this possibility being fulfilled. But attempts to become any "clearer" about objects of reference appear to be futile.... The supporter of R can allow that confusions take place but deny that the sort of 'equivocation' discussed by Wiggins and Perry is really fallacious or unavoidable: that is why R is true.42

Chapman's basic point is that the complete referential transparency demanded by Perry and Wiggins is impossible to achieve when our advancing knowledge of the empirical world results in theoretical flux. This point derives substantially from his speech act theory of reference: what is referred to depends in part on the knowledge and intentions of the person who is using the words to refer.43

Nevertheless it is one thing to be open to the possibility that nominal essences other than the one we use now for a name may be made necessary by advances of knowledge in the future, and quite another thing to say that at this moment a name could have several nominal essences which involve different and conflicting criteria of identity. What happens when the reference of a term is fixed one way and then an advance of knowledge makes it desirable to fix it in another way is that the old nominal essence is replaced by a new one -- not once and for all time, but just for the present time. It seems a
deliberate obfuscation to hold that in any given instance the reference of a name is undecidable because of its multiple nominal essences. It is not through a plurality of nominal essences for a given name that the R thesis becomes compatible with a certain amount of ontological relativity. This uneasy and qualified compatability instead results from how a single nominal essence introduces a criterion of relative rather than absolute identity for the referent of a name.
Chapter III:
Formal Problems in the Later Theory of Relative Identity

Section A: Introduction

In this chapter I shall devote myself to some miscellaneous formal problems to which the later theory of relative identity gives rise. The examples of relative identity will be more or less left behind for a while, during which time questions of a more abstract nature will be taken up. My principle aims at this point are to clarify further Geach's views, to ward off certain unfounded criticisms of them, and to contrast them with certain other views with which they might easily be confused.

In the first place, Geach makes use of three relational concepts which must be distinguished with care: I-predicables, equivalence relations, and relations of relative identity. These relational concepts cannot be used interchangeably, although it is sometimes difficult to keep them separate. To the extent that they can be properly sorted out, the theory of relative identity will gain by way of clarification.

In the second place, I have thus far tried to render as plausible as possible the examples generated by RII. However, unless the formal relations between RII and Leibniz's Law can be shown to be satisfactory, all this will have been to little avail. One would strive
in vain to make the examples of a theory work if the theory itself is in conflict with so well-entrenched a principle of identity as Leibniz's Law. Anyone familiar with the literature on relative identity will know of an apparently valid proof by Wiggins to the effect that R and Leibniz's Law are formally inconsistent.\(^1\) What I shall concede in this chapter is that RI is indeed inconsistent with Leibniz's Law interpreted in the naive, absolute way. This concession causes no trouble for the later theory of relative identity, in which both RI and the absolute interpretation of Leibniz's Law are discarded. In their place RII and LLI are proposed and between which the Wiggins proof cannot, by any appropriate modification, show a contradiction.

Finally, Quine's stance toward relative identity has evolved in an interesting way; in a sequence of careful steps, he has progressed from antagonist to advocate (in a limited and "subtle" sense, as he puts it\(^2\)). His warnings against property identity and his theory of ontological relativity have already been deployed in the defense of RII, and his heavy dependence upon Tarskian semantics in *Philosophy of Logic*\(^3\) should also be noted. Many passages can, and will, be cited in which Quine construes Leibniz's Law in just the way that Geach does. Yet Quine is also merciless in criticizing relative identity in his review of *Reference and Generality*,\(^4\)
and Geach, in his article "Identity," sets Quine up as the most formidable champion of absolute identity. To make sense of Quine's position, I shall distinguish two levels at which the relativity of identity may be argued: roughly, between theories and within theories. Geach argues for relative identity on both levels, while Quine, incurring inconsistency as he does so, acknowledges the relativity of identity only at the first level.
Section B: Three Relational Concepts

In the later theory of relative identity, the predicable used to make a statement of relative identity must satisfy three severally necessary conditions: 1) the predicable must be an I-predicable, 2) the predicable must express an equivalence relation, and 3) the predicable must be of the form 'α is the same F as ϕ.' Whether these conditions are also jointly sufficient depends on the ontology of the theory in question. I shall examine these conditions in turn, attempting to show that if any one of them is met by a predicable, the other two are not necessarily met.

An I-predicable is defined solely in relation to the ideology of a theory and is true of a and b just in case a and b are indiscernible by the predicables of that ideology. The indiscernibility of a and b in this sense is an equivalence relation. If 'ϕαϕ' is an I-predicable, then from 'ϕ ab' one may infer 'ϕ ba' and 'ϕ aa,' and from 'ϕ ab' and 'ϕ bc' one may infer 'ϕ ac.' However, an I-predicable is not necessarily of the form 'α is the same F as ϕ.' A crude theory could be constructed in which there are not any sortal terms at all; thus, no predicables of the appropriate form would be possible in that theory. Even in a theory which has sortal terms, it may be so that none of them apply to the objects which are indiscernible by the ideology of
the theory. And even if a theory has some sortals which are true of the objects in question, they need not appear in the I-predicables of the theory. In Geach's theory about surman, 'α has the same surname as β' is an I-predicable in spite of the fact that it is not of the form 'α is the same F as β.'

An equivalence relation is one which is reflexive, transitive and symmetric. Again, every I-predicable would seem to be an equivalence relation, but the converse does not hold. The predicabble 'α has the same surname as β' has been shown to be an I-predicable in theory T but not in theory T', to use an example from the last chapter. But its loss of I-predicable status in theory T' does not threaten its status as an equivalence relation; presumably, it would have the latter status in any theory. Moreover, an equivalence relation need not be of the form 'α is the same F as β.' Such predicables as 'α is congruent with β,' 'α is similar to β' and 'α is as old as β' express equivalence relations without being of this form; these predicables might be I-predicables in some theories, but they are not necessarily I-predicables in all theories.

Curiously enough, Geach at one point appears to say that all equivalence relations are relations of relative identity:

As for our recognizing relative identity predicables: any equivalence relation,
any relation that is non-empty, reflexive in its field, transitive and symmetrical, can be used to specify a criterion of relative identity. This procedure is common enough in mathematics: e.g., there is a certain equivalence relation between ordered pairs of integers by virtue of which we may say that x and y, though distinct ordered pairs, are one and the same rational number. (Geach's italics)  

On a sympathetic reading of this passage, however, Geach may be interpreted as claiming that any equivalence relation, when put into the proper form for identity predicables and when shown to be an I-predicable in an appropriate theory, has the capacity to express relative identity. The example in this passage supports this interpretation: from the fact that x is the same rational number as y one may not automatically infer that x is the same ordered pair as y. Here the equivalence relation alluded to by Geach has appeared in the proper form and is set within the context of some particular theory.

Finally, a predicable of the form 'α is the same F as β,' while necessarily expressing an equivalence relation, need not be an I-predicable in every theory. The whole point of RII is that predicables of this form express identity only against a certain theoretic background. The most important feature of this background is that the predicable of this form be an I-predicable. In theory T' of Geach's first example of RII, 'α is the same type word as β' is not an I-predicable, because the
ideological resources are available in $T'$ with which to
distinguish token words of the same type. Hence, this
predicable may not be used to convey identity in $T'$,
despite its proper form and the fact that it did convey
identity in theory $T$.

To conclude, there are no important logical
relations between being an I-predicable and being a
predicable of the form 'α is the same F as β.' A given
predicable may be one without being the other; although
in order to be either, a predicable must signify an
equivalence relation. Should it happen that the ideology
of a theory contains predicables which are both, these
predicables and these alone express relative identity
for that theory.
Section C: The Wiggins Proof and RI

Wiggins presents the following argument, which I quote in full, to show that R collides with Leibniz's Law:

The most direct way of demonstrating the incompatibility of this Law with R, which says that for some a, b, f and g
\[(a = b) \& (a \neq b) \& (g(a))\]
\[f \quad g\]
is to take the 'ϕ' in Leibniz's Law\n\[(1) \quad (a = b) \supset (ϕ)(ϕa ≡ ϕb)\]
\[f \quad g\]
as including in its range the predicable 'a = x'. It is extremely important that, as will appear, there are less direct and more satisfying ways of demonstrating the incompatibility than this, but if one does proceed in this direct way the premise\n\[(2) \quad (a \neq b) \cdot (g(a))\]
can quickly be made to contradict the supposition that (a ≠ b).

\[(1) \text{ immediately gives} \]
\[(3) \quad (ϕ)(a \neq b) \supset (ϕa ≡ ϕb).\]

Hence with the predicable 'a = x',
\[(4) \quad (a = b) \supset ((a = a) ≡ (a = b)).\]

But then, by modus ponens and the first limb of (2), we can detach the consequence of (4) to get\n\[(5) \quad (a = a) ≡ (a = b)\]
\[g \quad g\]
But by the reflexivity of '='
\[(6) \quad (g(a)) \supset (a \neq a).\]

And so by the second limb of (2)
\[(7) \quad (a \neq a).\]

Hence, by modus ponens with (7) and (5),
\[(8) \quad (a = b)\]
But this shows that with \( (a \neq b) \) & \( g(a) \f \)
we can disprove \( (a \neq b) \) and can thus disprove \( gR. \)

The version of \( R \) in force in this proof is clearly RI, for Wiggins nowhere mentions the possibility of deriving relative identity by shifting from one theory to another. Furthermore, as there are no ideological restrictions on the '\( \phi \)' of Leibniz's Law, Wiggins apparently construes it in an absolute way. His proof would be decisive if the theory of relative identity were left at the level of RI and if Leibniz's Law could be read absolutely. But neither of these conditions holds, so the later theory of relative identity is unscathed by the Wiggins proof -- at least in its present form.
Section D: The Wiggins Proof and RII

It may be suggested that the Wiggins proof could be modified so as to show a contradiction between LLI and RII. If this could be done, there would be a serious formal difficulty in the later theory of relative identity, especially in light of how I-predicables are dependent upon LLI. The modification would presumably proceed by replacing the absolute version of Leibniz's Law with LLI in step (1) and then, with premise (2), deriving the conclusion that $a \equiv^g b$. I do believe that this attempt cannot possibly succeed, but it would be interesting to observe just how it goes awry.

Let us begin by constructing two theories $T$ and $T'$ along the lines of the examples of RII in the previous chapter. In particular, let us suppose that '$a \equiv_f b$' is a claim of identity in $T$ but not in $T'$, for there is at least one predicatable in $T'$ which is true of $a$ and not true of $b$, or vice versa. Furthermore, let the predicable '$a = x$' be excluded from the ideology of $T$ but included in the ideology of $T'$, and let '$a \equiv^g b$' be a claim of identity in $T'$.

It will be remembered that any instance of LLI must be indexed to some particular ideology. By way of observing this requirement, suppose first that the '$\phi$' in the Wiggins proof ranges over the predicables in the ideology of $T$. If this is the case, the proof breaks
down in step (4), where it is necessary to substitute in the predicable \( 'a \equiv x. ' \) This predicable, \textit{ex hypothesi}, is not in the ideology of \( T \); so when LLI is indexed to the ideology of \( T \), it cannot be shown to conflict with RII.

To circumvent this problem, it will be proposed that LLI operate within theory \( T' \), where the ideology is rich enough to include the predicable \( 'a \equiv x. ' \) If this move is made, the substitution in step (4) can be done without difficulty. The trouble is that the formula

\[(a \not\equiv b) \Rightarrow (\phi)(\phi a \equiv \phi b)\]

is no longer an instance of LLI in theory \( T' \). The antecedent of Leibniz's Law is supposed to be a claim of identity, but \( 'a \not\equiv b' \) is not a claim of identity in theory \( T' \). Since there is at least one predicable in \( T' \) with which to discriminate \( a \) and \( b \), this formula is not even true in \( T' \). Hence, even when \( '\phi' \) admits as a substituend any predicable in the ideology of \( T' \), the modified Wiggins proof still does not show an inconsistency between RII and LLI.

There is, instead, a strong dependence in the later theory of relative identity upon LLI. This should be clear from the way in which I-predicables are defined by Geach: when one is true of \( a \) and \( b \), this indicates that \( a \) and \( b \) are indiscernible. But \( a \) and \( b \) cannot be indiscernible \textit{tout court}, lest semantic paradox ensue. Only with
respect to some specified ideology can \(a\) and \(b\) be indiscernible, and from this premise Geach derives the relativity of identity via the relativity of Leibniz's Law. If Geach had intended to supercede Leibniz's Law in some way, he surely would not have employed \(I\)-predicables to express relations of relative identity.
Section E: Quine, Indiscernibility and Identity

Quine's view of identity is not easy to characterize, but I shall do so by calling it inter-theoretically relative and intra-theoretically absolute. In justifying this characterization I hope to explain, in part, a very puzzling phenomenon: that Quine sounds so much like Geach in so many places and yet is singled out by Geach as a prince among absolute identity theorists. Exposing Quine's divided allegiance in this way will naturally raise questions about coherence and self-consistency, to which I will address myself later in this section.

The inter-theoretic relativity of identity is taken by Quine as a consequence of the dependence of indiscernibility upon some particular ideology in every case. When Quine comes to define identity, he generally does so in terms of predicable-based indiscernibility. The following passages may be taken as representative:

Each specific theory has its basic vocabulary of predicates....Usually the primitive predicates will be finite in number. When they are, we never need to count '=' among them; we can always define this in terms of the rest. Thus, suppose the only primitive predicates of some theory is a two place predicate, '₁'. Then '=' may be defined adequately for that theory by explaining 'x = y' as:

\[ (z)(₁xz \equiv₁ yz \cdot₁ zy \equiv₁ zy). \]

...identity thus implicitly accompanies any finite vocabulary of general terms....
The method of definition for identity is evident from the following examples. Consider a standard language whose lexicon of predicates consists of a one-place predicate 'A,' two two-place predicates 'B' and 'C,' and a three-place predicate 'D.' We then define \( x = y \) as short for:

\[
(3) \quad Ax \equiv Ay \cdot (z)(Bzx \equiv Bzy \cdot Bxz \equiv Byz \cdot Czx \equiv Czy \cdot Cxz \equiv Cyz \cdot (z')(Dzz'x \equiv Dzz'y \cdot Dzxz' \equiv Dzyz' \cdot Dxzz' \equiv Dyzz'))
\]

Note the plan: the exhaustion of combinations. What \( x = y \) tells us, according to this definition is that objects \( x \) and \( y \) are indistinguishable by the four predicates.\(^1\)

In general we might propound the maxim of the identification of indiscernibles: Objects indistinguishable from one another within the terms of a given discourse should be construed as identical for that discourse.\(^1\)

We cannot know what something is without knowing how it is marked off from other things. Identity is thus of a piece with ontology. Accordingly it is involved in the same relativity, as may be readily illustrated. Imagine a fragment of economic theory. Suppose its universe comprises persons, but its predicates are incapable of distinguishing between persons whose incomes are equal. The interpersonal relation of equality of income enjoys, within that theory, the substitutivity property of the identity relation itself; the two relations are indistinguishable. It is only relative to a background theory, in which more can be said of personal identity than equality of income, that we are able even to appreciate the above account of the fragment of economic theory, bringing as the account does on a contrast between persons and incomes.\(^1\)

After all this, it would seem a very hard task to grant Quine the absolute position on identity that he
is thought to espouse. What makes this possible at all is Quine's repeated caveats to the effect that his method of definition may or may not accord with our sense of genuine identity; it merely serves to provide a reasonable facsimile of identity for the particular theory in question. Geach notes the possibility of this intermediate position: "For all I have said so far," he says after describing the relativity of an I-predicable to a given theory, "it might be true that if a predicable is an I-predicable in a theory T, then what it expresses n that theory is strict, absolute, unqualified identity. The difference between Geach and Quine at this point would appear to be that Quine does maintain, while Geach does not, that there is more to identity than what an I-predicable expresses; moreover, according to Quine, I-predicables express identity for their universes of discourse only insofar as they are parasitic upon our notion of real identity. This is true merely in the sense that a facsimile of anything is parasitic upon the real thing of which it is a facsimile. We could not judge that Quine's definition of identity produces a reasonable facsimile of identity for a universe of discourse unless we knew independently what genuine identity was. This situation accords well with the views on definition set forth by Quine in "Truth by Convention":

Although signs introduced by definition are formally arbitrary, more than such arbitrary notational convention is
involved in questions of definability; otherwise any expression might be said
to be definable on the basis of any
expressions whatever....To be satis-
factory...a definition...must not only
fulfill the formal requirement of
unambiguous eliminability, but must
also conform to the traditional usage
in question.15

Geach's move against this view is that any attempt
to specify what identity is over and above what I-predicables
express leads to semantic paradox; but it is not clear
that this objection, even if it were sound, would touch
Quine's position at all, for Quine makes no attempt to
specify the notion of identity beyond the notion of the
I-predicable. Quine is in the curious position of
leaving what he calls genuine identity undefined (and
probably undefinable) and appealing to our garden-variety
intuitions about the conditions under which a and b are
identical. He assumes16 that those intuitions are well-
formed enough to distinguish cases in which his definition
of a reasonable facsimile of identity for theoretical
purposes is satisfied and yet genuine identity does not
obtain; the definition, he says, fails (and obviously
fails) in the example from a fragment of economic theory
which cannot discriminate persons of equal income.

Fortunately, Quine does not ultimately persist
in the untenable bifurcation of facsimile identity and
genuine identity. In his latest book, The Roots of
Reference, he admits straightforwardly that identity is
relative in the inter-theoretic sense (by "restrictive
term" Quine means the qualifying sortal used by Geach to complete the sense of identity statements):

The child comes by degrees to appreciate that whoever assents to sentences \( \alpha = \beta \) and \( \alpha \) is a \( \gamma \) will assent also to \( \beta \) is a \( \gamma \). In the end he becomes disposed to assent to \( \alpha = \beta \) when he can in general see his way to assenting to \( \beta \) is a \( \gamma \) on the heels of \( \alpha \) is a \( \gamma \) for arbitrary \( \gamma \). Even here, where identity stands free of any restrictive term, a relativistic account of identity retains a certain force. For the semantic standard of identity just now set forth remains relative to the words available in forming the terms \( \gamma \). When some additional general terms accrue to the language, a sentence \( \alpha = \beta \) that counted as true by the above standard could be turned false. The fineness of individuation of our universe of discourse, or of the values of our variables, varies with the richness of our supply of general terms. Individuation is in the eyes of the beholder, and varies with the strength of his lexical spectacles.17

Quine’s present avowal of inter-theoretic relative identity fits in nicely with his ontological relativism, just as his preference for predicatable-based indiscernibility dovetails with his excision of properties. In all these respects the similarity between Quine and Geach need not be labored.

Where Geach and Quine part company is over the nature of identity within a single theory, apart from inter-theoretic ideological contrasts. At this level Geach relativizes identity further by requiring that every well-formed expression of identity be qualified by a covering sortal. Quine has never been very well-disposed
toward this doctrine of incompleteness for simple identity statements. It is accorded a limited plausibility in just one context: at a primitive level of language learning, before the use of names, descriptions or variables is mastered, a speaker confined to the use of demonstrative pronouns as referring devices might venture to express identity by saying 'This is the same as that' and pointing appropriately. Here Quine is willing to grant the necessity of inserting a covering sortal. Even then, the effect of doing so is the disambiguating of the reference of the indexical terms rather than the qualifying of the identity relation.

For Quine, then, identity is intra-theoretically absolute; and to support this position he resorts to the principle of quantification theory:

The incompleteness doctrine is antithetical to the very notion of quantification, the mainspring of modern logic. Quantification depends on their being values of variables, same or different absolutely; grant quantification, and there remains no choice about identity, not for variables. For a language with quantification in it there is but one legitimate version of 'x = y' (not counting equivalent versions).

The factors for deciding which predicate(s) in a theory counts as the identity predicate are strong reflexivity and substitutivity; elsewhere, Quine claims that these "requirements fix identity uniquely" and "provide an objective and unequivocal criterion whereby to spot the identity predicate of a given theory, if such there be."
It is clear that a sortally qualified identity predicate does not fully meet Quine's standard of strong reflexivity and substitutivity. From the fact that Geach uses I-predicables to express relations of relative identity we may infer that they license substitutivity. If 'x is the same F as y' is an I-predicable, the formula

\[(x)(y)(x \text{ is the same } F \text{ as } y \cdot \ldots x \ldots \supset \ldots y\ldots)\]

would appear to hold good by definition, indicating the substitutivity conferred by relations of relative identity. But the predicate in a sortally mixed qualified statement of identity is only weakly reflexive, or "reflexive in its field," as Geach puts it.\(^2\) It is not in general true that

\[(x)(x \text{ is the same } F \text{ as } x)\]

this formula is true for only those values of the variable x that actually do fall under the sortal F. For strong reflexivity it is necessary to employ a sortally unqualified identity predicate:

\[(x)(x = x)\]

is true for all values of the variable x.

Why should Quine insist that quantification is impossible unless the values of variables are the same or different absolutely, in the intra-theoretic sense just outlined? One must assume that Quine is speaking of quantification objectually construed rather than substitutionally construed; there would be little point to the
demand that names be the same or different absolutely. But on this assumption Quine's demand appears to be at odds with his overall ontological relativism, and it certainly contradicts his own statement in the following passage:

That ontology should be relatively definite, pending revision, is required by the mere presence of quantifiers in the language of science; for quantifiers may be said to have been interpreted and understood only in so far as we have settled the range of their variables. (my italics)

My point is that there is a great deal of difference between requiring that the values of variables be the same or different absolutely and requiring that they be relatively definite, pending revision. As this passage intimates, the latter demand allows for degrees in the interpretation of quantifiers in a given theory: they are intelligible to the extent that their values are adequately individuated. To have its quantifiers fully interpreted is a worthy aim for any theory, but one which Quine regards as ultimately unattainable; thus, it would be foolish of him to dismiss automatically a theory in which the values of variables are not the same or different absolutely.

These remarks, of course, do not settle the question of intra-theoretic relative identity, but they do expose a serious weakness in Quine's argument against Geach's use of this notion. Earlier, I suspected a lack of equilibrium in Quine's divided allegiance in favor of
inter-theoretic relative identity and against intra-theoretic relative identity, and I hope by now to have toppled this precarious position. Before long I shall tackle the D thesis head on and examine Geach's positive arguments for intra-theoretic relative identity, a task made easier by warding off Quine's objection to its possibility.
Chapter IV: The D Thesis

Section A: Introduction

Gech's D thesis is the requirement all statements of identity be of the form 'a is the same F as b,' on pain of otherwise being incomplete. In this schema 'F' is to be replaced by a covering sortal for identity (usually a count noun). A consequence of the D thesis is that an identity statement of the required form cannot be analyzed into 'a is an F, b is an F and a is the same F as b.' Up to this point I have sought neutrality on the possibility of this analysis, but now it is time to consider Geach's arguments against this possibility. In taking up the D thesis, I am moving from inter-theoretic relative identity to intra-theoretic relative identity: identity relativized to some general term.

The claim that sortally unqualified statements of identity are incomplete is, of course, itself incomplete; for the standard of completeness for identity statements might be constructed in a wide variety of ways. So it is a central concern in this chapter to distinguish various senses of incompleteness contributed by Geach's various arguments for the D thesis. Allow me to briefly characterize five ways in which Geach finds sortally unqualified statements to be incomplete, and I shall more fully explicate these senses as I assess the evidence for the D thesis in the theory of relative identity.
1) A grammatical incompleteness might prevent one's meaning from being clear if one simply said "a is the same as b." Even if it were beyond doubt that the numeric (as opposed to generic) identity of a and b was being claimed, one's audience might have the right to ask, "the same what?" and receive a reply of the form, "a is the same F as b."

2) A second aspect of the D thesis is that Geach regards identity as being not one relation, but a multiplicity of relations. A different relation of identity is to be specified by the insertion of each different count noun; thus 'a is the same F as b' does not attribute the same relation of identity to a and b as 'a is the same G as b.' In this sense, sortally unqualified statements of identity are incomplete by failing to disclose which relation of identity is being attributed. Moreover, this incompleteness is an intrinsic aspect of identity itself. It is not a matter of how the identity is expressed in the sentence, but a matter of what identity is. Geach argues that every claim of identity must be accompanied (even if only implicitly) by a criterion of identity: a standard by which we determine the truth of the claim. It is in this epistemic sense, then, that sortally unqualified statements of identity are said to be incomplete. For, consistently with his view that identity is a multiplicity of relations, Geach believes that there cannot be any general criterion of identity. When a covering sortal is inserted into a statement of identity, a specific criterion of identity is thereby provided and the possi-
bility of knowing whether or not it is true is actualized.

4) A fairly technical sense of incompleteness or sortally unqualified identity statements is derived by Geach from Frege's doctrine of numerical attribution. On Frege's view, to attribute a number to some thing(s) is not to say that the thing(s) directly has (have) a numerical property; instead, it is to say something about the extension of the Begriff under which the thing(s) fall(s). To count objects is always to count them with reference to some Begriff. Geach capitalizes here upon the connection between numerical identity and counting by bringing Frege's view to bear upon identity statements.5

5) Finally, for reasons that follow from his nominal essentialism, Geach is very concerned to avoid a couple of untoward metaphysical theories about the basis in objects for identity and diversity: the bare particular theory and the qualitative bundle theory.6 In his fervor to do so, he comes to regard sortally unqualified statements of identity as incomplete in this metaphysical sense; for he fears that they might imply one of these theories -- especially the bare particular theory. This concern leads to the exclusion of certain pseudo-sortals (like 'thing' or 'object') as candidate terms for the completing of simple identity statements. Because each thing is of some particular kind, Geach views as incomplete any identity statement which does not specify the kind to which the object in question belongs.
Section B: R and D

Although Geach says almost nothing about the exact relation between R and D, there are some important logical connections to observe between the two theses. Unless these connections can be uncovered, the theory of relative identity might be open to a serious charge of incoherence. The particular question I raise here is whether R, as construed in the theory of relative identity, implies D. If this can be shown, an important argument for D would emerge from within the theory of relative identity. The argument would be of the following form: if R is true, and R entails D, then D is true. This argument will be of no interest to someone who would be unwilling, for the sake of argument, to grant the assumption that R is true. Nevertheless, if the rationale for R presented in the preceding chapters is sound, an advocate of relative identity would thereby have at hand an initial argument in favor of D.

To support the claim that R does imply D, it would be sufficient to show that R cannot even be stated unless the schematic expression of identity contained therein are relativized to covering sortals. According to R (in the theory of relative identity), the mere fact that a is the same F as b does not necessarily license the inference that a is the same G as b. Whether this inference is valid or not, according to Geach, depends on the theory or theories in which these sentences are held as claims.
For one thing, 'a is the same F as b' may be an expression of identity in a theory whose ideology does not include the predicable 'x is the same G as y.' Now if one were to extract the covering sortals from these putative expressions of identity, R would quickly reduce to a bare self-contradiction: the fact that a is the same as b is no grounds for assuming that a is the same as b. Therefore, if R is to be true at all, the schematic forms for expressions of identity contained therein must be relativized to covering sortals. And since R is presented as a formal possibility pertaining to any actual pair of identity statements, it follows that any actual statement of identity, in availting itself to this formal possibility, must be relativized to a covering sortal.

It might be objected that this difficulty in stating R without covering sortals is not insurmountable. After all, the main thrust of R is that a given statement is a statement of identity depending on the nature of the ideology of the theory in which it is true. Accordingly, if a purported statement of identity were simply indexed to the theory in which it is held to be a true statement of identity, R could then be consistently stated without the inclusion of covering sortals: the fact that a is identical with b in T does not necessarily license the inference that a is identical with b in T'.

To illustrate this possibility, consider two extremely crude theories, T and T', which are both about
entities a and b. (a and b would then be said to comprise the ontology of T and T'.) According to Quine's version of inter-theoretic relative identity, the identity or diversity of a and b is an open question until one has statements of identity or diversity on hand as claims in particular theories. Now suppose that there are just three claims in theory T: 'Fa,' 'Fb,' and 'a is identical with b.' It would be natural to say that in theory T, a and b are identified; because there are no predicables (not even relational predicables) in T with which to say something of a that cannot be said of b, or conversely. This gives a provisional sense to the expression 'a is identical with b in T.'

Theory T' may now be constructed from the following claims: 'Fa,' 'Fb,' 'Ga,' '¬Gb,' and 'a is not identical with b.' It would be equally natural to say that in theory T', a and b are not identified, because there is a predicable in T' with which to say something of a that cannot be said of b. This gives a provisional sense to the expression 'a is not identical with b in theory T'.

In this way, according to the objection, the relativity of identity implicit in R can be stated without any mention whatsoever of covering sortals. Again, the way of stating it would be: the fact that a is identical with b in T is no grounds for assuming that a is identical with b in T'. Let us call this proposal for stating the relativity of identity R'. R' is no more
well-disposed toward totally unqualified statements of identity than R. It merely purports to remedy their elliptical nature by indexing them to theories in which they are true instead of qualifying them with covering sortals. And while D may follow from R, it certainly does not follow from R'.

Geach's reply to this objection is hardly decisive, but perhaps it does succeed on an informal level:

Expressions like "in the same so-and-so" are part of our language, and stand in no apparent need of justification; I need no excuse for preferring them to other suggested relativizations of "the same:" "is the same in language L", or "is the same for Mr. Iksinski," which are expressions I do not yet understand.8

I have attempted to give a sense to 'a and b are identical in T,' a condition which obtains when a and b are indiscernible via the ideology of T. But Geach's point is well taken that an expression like this is much less clear than 'a is the same F as b,' for which no cooked-up sense is required. This constitutes prima facia evidence for Geach's style of relativizing identity.

Being placed under suspicion on grammatical grounds, R' may be convicted on more logical grounds. One of the basic ideas behind relative identity is that a predicable may express identity in one theory without expressing identity in every theory. This is what makes it impossible to infer 'a is the same G as b' (construed
as an identity statement) from 'a is the same F as b' (construed as an identity statement) in every case. A predicable such as 'a is the same F as P' may express identity in some but not all theories. Now if R' were an acceptable interpretation of relative identity, then, by parity of reasoning, the predicable 'a is identical with P' should express identity in some but not all theories. But this route is not open in the context of R', because the predicable 'a is identical with P' (for Quine) expresses identity in every theory. It is a matter of ideological refinement within each theory whether this predicable is true of a given a and b; but given that it is true of a and b, the identity of a and b is thereby established. Therefore, R' cannot replace RII without seriously altering the character of relative identity argued for thus far. It is clear that Geach does hold RII and not R', and since RII is a general thesis about any two statements of identity, every statement of identity must be of the form 'a is the same F as b' in order to be subsumed under RII. I would not conclude that this proves D, because any statement of identity can be put into this form -- assuming that there is no object that does not fall under some sortal. The truth RII, and its generality, does not show that statements of identity are incomplete until they are put into this form, but only that every statement of identity can
be put into this form. Further arguments are necessary in order to establish the incompleteness of identity statements not of this form.
Section C:
Grammatical Incompleteness and the Multiplicity of Identity Relations

Geach's intuitions about correct English usage run counter to the supposition that 'a is the same as b' is a complete statement. 'The same' is, on his view, a dangling expression which must be completed by a sortal: 'the same F.' The basic intuition behind Geach's claim is that identity is not one relation but a multitude of relations. A helpful analogy for understanding this intuition (although certainly no evidence for the D thesis) is the resemblance between 'the same as' and 'better than.' It does not make sense merely to say that Jones is better than Smith: one must say, for example, that Jones is a better golfer than Smith. Moreover, it is quite possible that Jones is a better golfer than Smith but not a better swimmer than Smith. Thus, for the same reason one might want to say that there is no such relation as being merely better than, Geach would want to say that there is no such relation as being merely the same as. This is not a denial of identity, any more than the necessity of being more specific than 'better than' means that there is no respect in which Jones can be better than Smith. It does mean that the way in which a is identical with b must be determined in some particular
way. Being the same type word is, \textit{prima facie}, not
the same relation as being the same token word, nor is
being a better swimmer the same relation as being a
better golfer. Rather, according to the theory of
relative identity, there are as many different relations
of identity as there are count nouns which may be appropri-
ately substituted for '\textit{F}' in the context '\textit{A} is the same
\textit{F} as \textit{B}.'

This intuition is the basis for replying to this
objection: one might concede that '\textit{A} is the same as \textit{B}'
is grammatically incomplete but dispute that '\textit{A} = \textit{B}' or
'\textit{A} is identical with \textit{B}' is grammatically incomplete.
The latter expressions do not sound as incomplete as the
former, nor do they contain a slot for the easy insertion
of a sortal term. However, by Geach's lights, they are
all incomplete by failing to specify which of the many
identity relations is being attributed. Since it is this
sense of incompleteness which underlies the grammatical
incompleteness of '\textit{A} is the same as \textit{B},' the argument from
grammatical incompleteness should be left behind as, at
best, plausible for only one of three ways of expressing
identity.

Support for the D thesis thus devolves to the
claim that identity is not one relation, but many. As
already noted, there are \textit{prima facie} grounds for regarding
'\textit{A} is the same \textit{F} as \textit{B}' and '\textit{A} is the same \textit{G} as \textit{B}' as
containing different relational predicables. Since one statement could be true without the other being true (even on an absolute theory of identity), no more proof would seem to be necessary for the conclusion that there are many different identity relations. However, this conclusion does not follow if 'a is the same F as b' may be analyzed into 'a is an F, b is an F and a = b.' On this analysis, the same relation is present in every statement of identity; and sortally relativized identity statements merely differ in the predication of different one-place sortal predicables.

It is a consistent theme in Geach's writing to deny the possibility of this analysis. One of his attacks on this possibility is plainly circular: he professes, of course, not to understand the statement 'a = b.' For Geach, 'a is the same F as b' is an intelligible, complete expression, while 'a is an F, b is an F and a = b' is not; thus, the two could not be equivalent. Clearly an impasse has been reached, one at which it is difficult to tell where the burden of proof lies. Geach's second argument against this analysis is based on his theory of how substantive general terms are predicated. On his theory, 'a is an F' is defined as 'a is the same F as itself;' thus, the analysis under consideration does not succeed in eliminating statements of the form 'a is the same F as b' in favor of simpler constructions. It would be proper to ask why one should accept this
theory of predication for substantive general terms, and, unfortunately, Geach's reasons for holding it are so obscure that I will not venture to reconstruct them. The theory does not seem implausible: I cannot think of any case in which 'a is an F' is true and 'a is the same F as itself' is not. But that is not compelling evidence for the necessity of defining the former in terms of the latter.

To summarize this section, Geach's arguments for the first two senses of incompleteness in unqualified statements of identity are inconclusive. It appears reasonable that 'a is the same F as b' contains a different relation from the one in 'a is the same G as b,' but it also appears reasonable that both of these statements could be analyzed in the way that produces just one relation. The statement 'a is the same as b' sounds grammatically incomplete, but the statements 'a is identical with b' and 'a = b' do not. Nothing prevents the translation of 'a is an F' into 'a is the same F as itself,' but nothing particularly recommends it either. The support for D will have to be more substantial than this; perhaps better arguments for D will be forthcoming in subsequent sections.
Section D: D and the Theory of Nominal Essences

Another argument for D is presented by Geach as part of his theory of proper names. According to this theory a name must have a minimal sense attached to it which indicates the kind of thing designated by it. The sortal which performs this function Geach calls the nominal essence of the name. The theory of nominal essences is justified by considering what a name user would be required to know in order to have learned the correct use of a name. Foremost among these requirements is that a name user know that the same thing is being referred to when the name is repeatedly applied. A nominal essence, then, is the criterion of identity which a name user must have in mind to be assured that he is apply the name correctly.

The argument for D from the theory of nominal essences is that if identity must be assumed for correctness in the repeated application of a name, the criterion of identity which governs the former must also govern the latter. Geach illustrates his point by saying that if I were to tell a story about Smith, such as "Smith committed seven burglaries, then Smith committed a murder, then Smith was hanged," I should be willing to replace the second and third occurrences of 'Smith' with 'the same man' and realize that the "intelligible context" of my story had not been altered. And what is behind my
ability to use the name 'Smith' in the first place is my willingness to assert to a hypothetical string of sortally qualified identity statements of the following form:
'that which I designated by the name 'Smith' at time \( t_3 \) is the same man as that which I designated by the name 'Smith' at \( t_2 \) . . . that which I designated by the name 'Smith' at time \( t_2 \) is the same man as that which I designated by the name 'Smith' at time \( t_1 \) . . .' Thus,

In a given context, the sense of "beetle" does include: being an insect, and the sense of "Smith" does include: being a man.14

He regards his theory of nominal essences as a middle course between the Russell-Quine view that names are just disguised definite descriptions and Mill's view that proper names have no connotation but only denotation. Accordingly, his defense of his theory amounts to little more than an attempted refutation of these more extreme positions.

One of the things which, for Geach, counts against names being abbreviations for definite descriptions is that names must be logically simple and hence incapable of dissection by definition. (In this Geach concurs with Wittgenstein in the Tractatus, 3.26)

A name relates directly to what it names; a complex sign cannot bear a direct relation to the thing signified -- the relation must be mediated by the constituent signs of the complex.15

Although it is quite possible to introduce a name withn
a definite description — "Hackerman is the president of Rice University" — the name is not thereby defined. The name 'Hackerman' designates directly, while the definite description 'The President of Rice University' designates indirectly and as a function of its constituent terms.

The only way in which names can become equivalent to definite descriptions, according to Geach, is for them to become, like definite descriptions, essentially predicative in nature. Thus, he looks askance at Quine's proposal to eliminate singular terms and reparse them as predicates such as 'is-Socrates' or 'is-Cerebius'.\(^{16}\)

One of the main themes in *Reference and Generality* is that names and predicables must be kept separate and not confused with each other. Among the ways in which to demarcate names from predicables are: a) names have a complete sense in virtue of being about something and standing independently in "a simple act of naming," b) they are incapable of being true or false of things, c) they do not come in contradictory pairs, and d) they cannot take on tenses.\(^{17}\)

Finally, Geach thinks that the Russell-Quine position on proper names is just false from a psychological perspective:

...when I refer to a person by a proper name, I need not think of him explicitly in a form expressible by a definite description, or even be prepared to supply
such a description on demand (not, that is, with any confidence that the description really is exclusive). 18

The contrary position on names is no better, as Geach would have it. If a proper name had only denotation, its entire significance would consist merely in its having a bearer. But, says Geach:

This is absurd; be certainly do not give a man the meaning of a proper name by presenting him with the object named. 19

Although Geach stoutly resists the view offered by some philosophers that demonstratives are the only genuine proper names (or a species of "supernames") 20, the above passage hints at a difficulty which would be shared by demonstratives and names on the assumption that names are purely denotative. The difficulty is that demonstratives typically cannot be used to refer unless they are disambiguated -- either explicitly or implicitly in the context of utterance -- by a general term of some sort. To illustrate, if I say, "This is the best place to be," you would have to know whether I meant this room, this building, this university, this city, this state, this country, etc., in order to know what I was saying. Or, if I were teaching English to a foreigner and simply pointed and said, "that is red," my student would have to know whether I was indicating a color, a shape, or a kind of thing. In just the same way, Geach is claiming, one cannot clarify the reference of a proper name just by
presenting the object which bears the name. For this reason, names cannot be purely denotative; they succeed in referring only with the assistance of a general term, i.e., a nominal essence.

This point comes into focus when Geach argues in a more positive way for his own view of names:

In using a proper name we claim the ability (or at least acquaintance, direct or indirect, with someone else who had the ability) to identify an object; and by giving somebody an object we do not tell him how to identify it. Different proper names of objects convey different requirements as to identity; the name "Cleopatra's Needle" (which is logically a single word) conveys the requirement of material identity, but neither the name "Thames" nor any proper name of an animal conveys any such thing. For every proper name there is a corresponding use of a common noun preceded by "the same" to express what requirements as to identity the proper name conveys: "Cleopatra's Needle" -- "the same (bit of) stone"; "Jemima" -- "the same cat"; "Thames" -- "the same river"; "Dr. Jekyll" or "Mr. Hyde" -- "the same personality."21

In this passage the connection between the theory of nominal essences and D is revealed. The use of a proper name implies identity (over time) for that which is designated, because the paradigmatic function of a proper name is its use to refer to the same thing on different occasions. For this function to be fulfilled, Geach argues, some definite criterion of identity must be in force; because the Thames remains the same river despite the flux of its material composition, while Cleopatra's
Needle would no longer exist if the chunk of stone of which it is made did not exist. If, *per impossibile*, the Thames were in South America, it would (so to speak) not be the same river as it is; but Cleopatra's Needle could be anywhere and still be identical with that which is designated by its name. Since different names are correlated with different criteria of identity, the hypothetical statements of identity which are the basis for their correct use must reflect this fact and can only do so in being qualified by sortal terms. Hence, by Geach's lights, the theory of nominal essences entails D.

Before considering objections to this argument for D, I want parenthetically to note that the latter-day descendents of the two extreme positions on names which Geach rejects are in substantial agreement with the theory of nominal essences. I refer, on the one hand, to the causal/historical theory of reference advanced by Kripke\(^{22}\) and Donnellan\(^{23}\) as a refinement of Mill's position\(^{24}\) and, on the other hand, to Searle's revival\(^ {25}\) of Russell's position\(^ {26}\) on the equivalence of names and definite descriptions. Since these are the two major theories on reference *via* proper names alive today, it would be a strategic defense of Geach to show that either view involves something like the theory of nominal essences. So to argue would be to obviate, in part, the force of any objections to the particular ways in which Geach
attacks the two extreme positions on how proper names are used to refer.

According to Kripke and Donnellan, the means by which rigid designation for names is obtained is described in terms of a historical/causal nexus extending back from a present speaker's ability to use a name to the ceremony in which the referent ostensively got its name. The links of such a nexus are established when someone who knows how to use a name correctly transfers this ability to someone else. In transferring the ability to use a name, Kripke and Donnellan argue, one does not attach a sense to the name which specifies sufficient descriptive conditions uniquely satisfied by the referent of the name. On the other hand, there are certain descriptive terms of a sortal variety which are analytically related to a name as necessary conditions to be satisfied by the referent of the name. Donnellan writes:

...one need not deny that there are some constrains on what the referent of a name may be -- some description it must fit. But this is only to allow that there may be a 'backing of descriptions' that serve as necessary conditions, while the principle of identifying descriptions tells us that such a backing of descriptions also serves as sufficient conditions ....If anyone wants to maintain that our use of the name 'Aristotle' is such that being a human being or not living in modern times, etc., are necessary for being the referent of the name, I have no objection here to offer against a 'backing of descriptions' in that weaker sense. Such an attenuated backing would not uniquely identify the referent.
Thus, what Geach would call the nominal essence of a name is present in two ways in the historical/causal nexus which accounts for my being able to use a name correctly. In the first place it must be at least implicit in the "baptizing" act of ostension by which an object receives its name. I cannot (as I have argued earlier) simply present an object and say "This is Joe;" for someone to learn the use of this name it would have to be clear that this man is Joe. Otherwise it might be inferred that this color is Joe or that this shape is Joe. Indexical pronouns, even when accompanied by the appropriate sorts of gestures, cannot refer without the assistance of a clarifying general term. In the second place, in conveying the ability to use an already established name it is trivially true, on Donnellan's account, that one must convey a modicum of necessary conditions which the referent of the name must satisfy. When Donnellan talks about the "constraints on what the referent of a name may be," he appears to echo the basic tenet of Geach's theory of nominal essences.

Kripke proceeds in much the same way when he claims that a necessary condition of 'Nixon' being a rigid designator is that it refer to a (particular) man in every possible world.\(^{28}\) Despite this fact he explicitly denies Geach's theory of nominal essences\(^ {29}\) on the grounds that in this theory 'Nixon is a man' is an \textit{a priori} proposition,
and, hence, has epistemological status, while on his view it is a necessary truth metaphysically founded upon Nixon's real essence. In reply to Kripke I would say that nowhere does Geach indicate that 'Nixon is a man' must be known a priori. If the theory of nominal essences is construed in Kripke's way it apparently reduces to a weak and spurious view about the manner in which someone must have a nominal essence in mind on any particular occasion of using a name to refer. But this is not what Geach means when he discusses the conditions for the possibility of correctly using names: his theory is not a psychological thesis but an explication of certain logical -- and ultimately metaphysical -- conditions for reference via names. For Geach, it is the fact that objects themselves assume identity under differing criteria that implies the theory of nominal essences. Kripke's interpretation of Geach would make it arbitrary that we assign a material criterion of identity to Cleopatra's Needle, as if there were no right or wrong about the connection between a name and a nominal essence.

Even on the view of proper names that Kripke and Donnellan are most concerned to defeat, one finds again the basic considerations which lead Geach to adapt the theory of nominal essences. Searle distinguishes a weaker and stronger form of the question, "Are any propositions where the subject is a proper name and the
predicate a descriptive expression analytic?" The stronger form is distinguished from the weaker by the condition that its predicate be an identifying or definite description. In arguing for an affirmative answer to the weaker form of this question, where the predicate may be indefinitely descriptive, Searle writes:

It is characteristic of a proper name that it is used to refer to the same object on different occasions. The use of the same name at different times in the history of the object presupposes that the object is the same; a necessary condition of identity of reference is identity of the object referred to. But to presuppose that the object is the same in turn presupposes a criterion of identity: that it, it presupposes an ability on the part of the speaker to answer the question, "In virtue of what is the object at time t.1, referred by name N, identical with the object at time t.2, referred to by the same name?" or, put more simply, "The object at time t.1 is the same what as the object at time t.2?" and the gap indicated by "what" is to be filled by a descriptive general term; it is the same mountain, the same person, the same river, the general term providing in each case a temporal criterion of identity. This gives us an affirmative answer to the weaker question. Some general term is analytically tied to any proper name: Everest is a mountain, the Mississippi is a river, de Gaulle is a person. Anything which was not a mountain could not be Everest, etc., for to secure continuity of reference we need a criterion of identity, and the general term associated with the name provides the criterion.31

In presenting these later developments in the theory of reference via proper names, I have both weakened and strengthened Geach's overall argument for nominal
essences. It weakens his argument, because its force is largely negative and proceeds by way of showing that neither extreme position is correct. Geach's assumption here is that the theory of nominal essences is incompatible with both of the extreme positions, but if my attempt to show that both extreme positions are in favor of nominal essences has succeeded, Geach's assumption is no longer tenable and his arguments resting on that assumption no longer prove what they are intended to prove. On the other hand, to find the theory of nominal essences in both Donnellan and Searle, as representatives of the two most widely accepted positions on reference via proper names, ought to be a mark in Geach's favor. This discovery is not a decisive demonstration that Geach is right about nominal essences, and if anything it shows that he argued poorly for his position; nevertheless, it should be modestly persuasive that philosophers of such contrary camps find the idea of nominal essences intuitively plausible.

Although it is normally the case that in having the ability to use a proper name, one knows what kind of thing is being referred to, certain unusual cases could be cited as counter-examples to the thesis that such knowledge is a necessary condition for using a name correctly. Two kinds of cases come to mind: a) cases in which no sortal at all is either explicitly stated or implicit in the context of utterance, and b) cases in which an incorrect sortal is assumed.
The first kind of case might be cooked up as follows. Suppose I am away from home and my wife calls to tell me that Sam is in the back yard. I do not know anybody -- or anything -- named 'Sam,' and yet merely because I am apprised of a fact about Sam (his, or her, or its being in the back yard) it follows that my wife has succeeded in referring to Sam. For, it might be argued, being in possession of a fact simply amounts to knowing that something is true of that which the fact is about. I might not be able to identify Sam, but I could convey the fact that Sam is in the back yard to someone else, equally in the dark about who or what Sam is; and in doing so a fortiori I would have referred to Sam and correctly used his, or her, or its name.

A case of the second kind can be drawn from the history of astronomy and is much less unusual than our first case. The name 'Hesperus' was originally assigned to what was thought to be a planet and was later discovered to be a star. If Geach's theory of nominal essences is right, then insofar as the Babylonians linked the name 'Hesperus' with the sortal 'star,' they could not be said to have had the ability to use the name correctly. But this opposes the more plausible and charitable view that there was a correct use of the name 'Hesperus' before it was discovered to be a planet. People did, in fact, use the name to refer to the same thing on different occasions. Moreover, on Geach's view, if they announced
their later discovery by saying "Hesperus is not a star but a planet," they would have been uttering a self-contradiction, because that would be like saying, "Nixon is not a man but an insect." But this is an unacceptable consequence of Geach's view.

Let us now consider some replies to this objection. In the first case, the fact that I can use a name to refer successfully does not entail that I have the ability to use the name correctly, because my having this ability would seem to require that I could use the name on a variety of different occasions and that I could identify (but not necessarily recognize) Sam -- in short, I should be able to say who or what it is that I am talking about when I use the name 'Sam.' It cannot be that the definite description (if it is one) 'that which is in the back yard' is sufficient for picking out some unique individual, viz., Sam. For there may be plenty of other things in the back yard which are not Sam. Sam's presence in the back yard and my wife's knowledge of Sam's presence in the back yard are, ex hypothesi, all that I know about Sam.

The second case does not necessarily show that the theory of nominal essences is wrong, but it does indicate that perhaps more cautious sortals should be selected as nominal essences for names. Thus, if the nominal essence of 'Hesperus' were something like 'celestial body' instead of the more specific sortal 'star,' there
would be no contradiction in saying 'Hesperus is not a star but a planet.' This is admittedly an ad hoc procedure, and one of the greatest defects of Geach's theory of nominal essences is that no rule is even suggested for deciding which of the many sortals true of something is to be the nominal essence of its name.

To see how acute the consequences of this admission could be, consider the fact that Tricky Dick is identical with Nixon. The most tempting sortal to use in completing this statement of identity is 'man': Tricky Dick is the same man as Nixon. The reason, according to Geach, that it is necessary to insert a sortal at all is that one has to know what kind of thing is referred to by 'Nixon' and 'Tricky Dick' in order to have a criterion for judging as to identity. But Nixon is also a father, a husband, a citizen, a politician, a Republican, etc.: all these sortals tell us what kind of man is referred to by 'Nixon' and 'Tricky Dick.' If they do so, then why shouldn't they also be included in any statement of identity about Nixon, thus making it more complete than merely the sortal 'man' would? If Geach's goal is to make criteria of identity explicit in every statement of identity, it would seem that the only complete statements of identity would be those in which every sortal true of the object in question were included. On the principle that more sortals result in a better criterion of identity, one would think that a complex
nominal essence for 'Nixon' including all of the sortals true of him would be much better than the simple nominal essence 'man.' But surely this is an exorbitant standard for the completeness of identity statements and the sense of names.

There is in Geach an inchoate doctrine about the way in which some sortals "restrict" certain other sortals: the sortals 'baby,' 'boy,' 'youth,' and 'geezer' all restrict the sortal 'man' insofar as they could indicate temporal phases in the life of one and the same man. Although one can only guess about what is going on here, it looks as though a sufficient condition for sortal $F$ to restrict sortal $G$ is that an object can be an $F$ for only part of its existence but cannot be a $G$ for only part of its existence. On this reading the appropriate nominal essence of a name, and hence the appropriate sortal with which to complete identity statements involving the name in question, would, naturally enough, be those which indicate what is essential to the object named. Proceeding in this way will eliminate all of the accidental sortals which are true of Nixon, all of which are restrictions on his being a man in the sense just elucidated.

Thus, to apply this doctrine to our second problematic case, we might allow that certain physical and chemical changes could happen such that Hesperus stopped orbiting the sun and began to radiate light and heat on its own. If this happened we would not say that
Hesperus went out of existence but rather that what was once a planet became a star. But if Hesperus ceased to be a celestial body we would probably say that Hesperus went out of existence. To permit this way of speaking would be to regard the sortals 'planet' and 'star' as restrictions on the sortal 'celestial body.' Thus, the proper nominal essence of 'Hesperus' is the sortal 'celestial body.'

The theory of nominal essences, then, does establish an epistemic standard for the completeness of identity statements which those lacking sortals cannot attain. This standard requires that one know what kind of thing a name refers to in order to be able to use it correctly. One might succeed in using a name in some substandard way without meeting this requirement, but these cases are exceptions which prove the rule. Since some sortal is thus linked to every name, some sortal is implicit whenever the sign of identity is flanked by two names. If it is not clear from the context of utterance which sortal is at work in a claim of identity, the names in that claim are not functioning properly; and one's audience might well be unable to determine what is being claimed.
Section E: Frege and D

There is an obvious connection between assigning identity to objects and counting them, that is, attributing numbers to them. For one thing, the sort of identity under discussion throughout this work is numerical identity. For another, when it is said that \( a \) is identical with \( b \), this means that \( a \) is, as it were, just one of them; and when it is said that \( a \) is not identical with \( b \), it follows that there are two of them. Moreover, it is logically impossible for two things to be numerically identical. This being so, there should be some very important ramifications for the theory of identity to be found in the theory of counting.

Geach recognizes these connections and attempts to argue for D on the basis of Frege's doctrine of numerical attribution:

When one says "\( x \) is identical with \( y \)" this, I hold, is an incomplete expression; it is short for "\( x \) is the same \( A \) as \( y \)" where \( "A" \) represents some count noun understood from the context of utterance -- or else, it is just a vague expression of a half-formed thought. Frege emphasized that "\( x \) is one" is an incomplete way of saying "\( x \) is one \( A \), a single \( A \)" or else has no clear sense; since the connections of the concept one and identity come out just as much in the German "ein und dasselbe" as in the English "one and the same," it has always surprised me that Frege did not maintain the parallel doctrine of relativized identity, which I have just briefly stated.33

To pin down the incomplete aspect of sortally unqualified identity statements which Geach is claiming
here, one could compare 'x is identical with y' with some logically equivalent expressions. The basic idea behind the numeric identity of x and y is that there is but one thing referred to by 'x' and 'y.' So this idea is, one would think, captured well by the expression 'x and y are one and the same.' But this is really a redundant expression: 'x and y are one' says no less than 'x and y are one and the same,' because 'the same' here means 'numerically the same.' If x and y are numerically the same, it is unnecessary to say, in addition, that they are one; the converse also holds. Thus, it turns out that 'x is identical with y' is logically equivalent to the infelicitous 'x and y are one.' Geach's argument, then, would seem to be that if 'x is one' is an incomplete expression, then so is 'x and y are one,' and consequently so are 'x and y are one and the same,' 'x is the same as y,' and 'x is identical with y.'

The background for Frege's claim that 'x is one' is an incomplete expression may be found in the *Grundlagen der Arithmetik.* Here he is concerned to defeat both Mill's view that numbers are direct physical attributes and Berkeley's doctrine that numbers are subjective mental creations. Against Mill he presents three objections, the first of which is that other kinds of things than physical objects can be counted: e.g., sounds, syllogisms, and numbers themselves. Secondly, plenty of physical objects cannot be assigned a unique and definite
number. A single stack of playing cards may be two decks, eight suits and one hundred and eight cards. This being so, no unique number may be said to characterize the stack in response to the question, "How many is this?" Finally, there are special problems with the attribution of certain numbers, like 0, to physical objects simpliciter. The only way one could characterize an object by the number 0 is for that object not to exist, but then one could not characterize it at all. Berkeley's mentalistic doctrine of numbers is taken much less seriously by Frege; it would imply that "a hard-pressed officer could increase the number of his troops merely by taking thought." 35

On Frege's positive account numbers are second-order concepts which indicate the extension of certain first-order concepts. An appropriate first-order concept specifies a kind of thing and may be directly predicated of an object, while a second-order concept, like a number, may only be attributed to a first-order concept. When _F_ is a kind of thing and it is said that there are seven _F_ 's in the room, this, to Frege, means that there is a sevenfold instantiation of the concept 'F' in the room. Later, in the preface to the _Grundgesetze der Arithmetik_, he underscores the same thesis:

...assignment of a number involves an assertion about a concept; and upon this my present work is founded....in fact I even define number itself as the extension of a concept.... 36
Although Frege does not espouse a relativized theory of identity, Geach remarks that he should have and sees himself as simply drawing the natural conclusion from Frege's doctrine of number. On this doctrine, the incompleteness of 'x and y are one,' and accordingly 'x is identical with y,' results from the failure to specify a kind-concept to which the number one is attributed. This omission gives the misleading impression that the number one is a first-order property of x and y, and Frege has argued that this cannot be the case. As a corollary to his Fregean defense of D, Geach invokes the Aristotelian maxim that being is not a genus to obstruct the completing of unqualified identity statements by the insertion of certain pseudo-sortals, such as 'existent,' 'thing,' 'object,' 'particular,' 'entity,' and 'individual.' If "There is no such kind of thing as 'the things which there are,'" the concept with which a statement of identity is completed will have to be a genuine sortal: one which really sorts things out. On Fregean grounds 'x is the same thing as y' is no more complete than 'x is the same as y;' because 'thing' is not a proper Begriffswort, failing as it does to determine a kind. Unqualified statements of identity must be completed with count nouns of a more specific character which allow for the possibility of ascribing definite numerical values.

This is not the place for a general critical
analysis of Frege's doctrine of number, but it could be argued that Geach is illicitly applying this doctrine in claiming that it entails D. One rather dubious assumption in this argument is that if 'x is one' is logically incomplete in a certain way, 'x and y are one' is also incomplete in exactly the same way. To defend this assumption one might say that since the problem with this expression is with the predicate, it should make no difference whether the subject is compound or not.

Nevertheless, the grounds upon which to challenge this assumption are these: an opponent of D might want to claim that 'x and y are one' asserts little but at least the identity of x and y. The fact that this is a somewhat unusual way of expressing this does not necessarily prove it to be a logically incomplete expression. Thus, what Frege says about 'x is one' would not necessarily apply to 'x and y are one' or similar statements of this form. However, could not one, with equal justification, claim that 'x is one' asserts, if anything at all, the self-identity of x? While the self-identity of x is a trivial fact and the identity of x and y is not, this is surely an epistemic point and not an issue of logical form. In addition, it appears that by the reflexivity of identity one could put 'x is one' into the following logically equivalent form with a compound subject: 'x and x are one.'
Aside from this consideration, there is textual evidence to the effect that Frege regarded statements of the form 'x and y are one' just as incomplete as those of the form 'x is one.' This is exactly what we should expect, given that Frege's theory of numerical attribution is a quite general view about the conditions under which numbers may be assigned to objects. In the review of Husserl's Philosophie der Arithmetik, Frege states:

But what do we really learn from the sentence 'Berlin and Dresden and Munich are three'; or, what is supposed to be the same, 'Berlin and Dresden and Munich are something and something and something.' Who would take the trouble to ask a question in order to get such an answer? It is not even meant that Berlin is different from Dresden, Dresden from Munich, and Munich from Berlin; indeed, the second form involves neither the distinctness of Berlin and Dresden nor their identity...

In fact we do not ask 'How many are Caesar and Pompey and London and Edinburgh?' or 'How many is Great Britain and Ireland?'... We do ask, on the other hand, 'How many moons has Mars?' or 'What is the number of Martian moons?' and from the answer 'The number of Martian moons is two' we learn something worth asking about.38

The main point Frege seems to be making here is that in order to have an intelligible and complete statement of numerical attribution one would have to say something like 'Berlin and Dresden and Munich are three cities.'

It is true that Frege does not infer the relativity of identity from his doctrine of numerical attribution. He
allows that in common parlance, 'rape-seed and rape are two' could express difference and 'I and the Father are one' could express identity.\textsuperscript{39} The extent to which he disapproves of this way of speaking is not evident; it is clear that he regards them not only as exceptional constructions but also as statements of identity or diversity as opposed to "statements of number."\textsuperscript{40} Therein, I would argue, lies his mistake: the mistake of supposing that there are statements of (numerical) identity which are not statements of number. Instead, it is trivially true that any statement of (numerical) identity is implicitly a statement of numerical attribution, and I would agree with Geach in saying that given the connection between counting and identity, Frege's doctrine of number is inconsistent with his theory of identity.

It could also be questioned whether the statement 'I and the Father are one' is a claim of the absolute identity Frege espouses. On the orthodox interpretation of the Trinity, Christ and the Father are the same God but not the same person. To suppose otherwise, as Wiggins points out,\textsuperscript{41} is to commit the heresy of patriarchism: the doctrine that since Christ and the Father are identical, the Father suffered crucifixion in virtue of Christ's having done so. On at least one unorthodox view of these matters, the oneness of Christ and the Father is not substantial but merely amounts to, their being united (perhaps as a team) in concern for
the fulfillment of a spiritual mission.

Regardless of these difficulties in Frege, it is clear from the above passage that he would judge a statement of numerical attribution such as \( x \) and \( y \) are one' to have the same need for completion by a Begriffswort as a statement such as '\( x \) is one.' That he would not necessarily regard either of these statements as statements of identity is just a mistake on his part. The important point is that Geach is justified on Fregean grounds in regarding '\( x \) is one' and '\( x \) and \( y \) are one' as similarly incomplete expressions.

Although the relativity of counting to sortal terms is unquestioned by many who would be unwilling to grant the relativity of identity, it might be well for an absolute identity theorist, in light of the connection between counting and identity, to inquire whether an absolute view of counting might be required on an absolute view of identity. Such an inquiry might lead to an alternative interpretation of cases which are normally cited to demonstrate the relativity of counting. To recall such an example, the fact that a single pile of playing cards might be two decks, eight suits and one hundred and eight cards is supposed to prove that no unique number can be given in response to the question 'How many is this?' The meaningfulness of this question is even said to be challenged by this conclusion. To make
a count it is necessary to know what kind of thing is to be counted: the assignment of a number, as Frege would say, indicates the extension of a sortal concept.

But to use this example against the relativity of counting, one could begin by saying that everything in the pile of cards is of some particular kind. For the sake of simplicity, assume that the only kinds to be found in the pile of playing cards are those represented by the sortals 'pile,' 'deck,' and 'card.' To find the number of things present therein, one would just add the number of piles, decks, suits and cards: one hundred and nineteen.

But even if the schoolboy wisdom about adding apples and oranges can be disregarded, this objection does not succeed in showing that counting, and, hence, numerical attribution, can proceed independently of any reference to sortal terms. On the contrary, calculating that the pile of cards consists of one hundred and nineteen things depends on there being sortal terms attached to the numbers which are added together. And the resulting sum is implicitly qualified by a disjunctive sortal, 'piles decks suits cards.' Finally, to see that there is nothing absolute about the number one hundred and nineteen in relation to the pile of cards, consider that the entities present therein could have been counted in countless other ways or groupings, according to just about
any possible set of applicable sortals.

Geach's appeal to Frege's doctrine of numerical attribution is a persuasive consideration in favor of the D thesis. To discount this argument one would either have to deny the connection between identity and counting or suppose that objects can be counted without any reference to sortal terms. Neither of these moves is viable, as I have attempted to show. In a way, the burden of proof has shifted to the theorist of absolute identity, who should now seek to explain how (if at all) the sortally dependent theory of counting can be reconciled with the sortally independent theory of identity. My guess is that the two cannot be reconciled, given the connection between identity and counting; and if this is correct, there is good reason to think that any view of identity is incorrect which involves a rejection of the D thesis.
Section F: Bare Particulars and D

One of the difficulties with sortally unqualified statements of identity, according to Geach, is that they can be analysed in such a way as to suggest the existence of bare particulars. 42 Consider the expression 'a is the same thing as b.' For someone to regard this as a logically complete expression would be tantamount to acknowledging the existence of things. There is a way in which the presumption that things exist is innocuous, and there is a way in which it is not. As long as it is understood that every existing thing is of some particular kind, there is nothing wrong with saying that things exist. But unless this additional assumption is made explicit, the existence of things might be interpreted after the manner of philosophers who posit qualityless substrata as the basis for numerical individuation. It is in this decidedly uninnocuous sense that mere things, or bare particulars, are sometimes said to exist. (This same point could be made with respect to any of the other pseudo-sortals: 'particular,' 'object,' 'entity,' 'individual,' etc.).

As we shall see, Geach is quite opposed to the doctrine of bare particulars; and his opposition to this doctrine provides a pretext for claiming again that statements of identity must be completed by covering sortals. He is troubled by the fact that an expression
such as 'a is the same thing as b' might be interpreted in such a way that bare particulars are implied, however ridiculous and ill-founded this interpretation may be. By contrast, an expression such as 'a is the same man as b' could not conceivably be interpreted in this way. So if a statement of identity is not completed by a genuine sortal, but only by a pseudo-sortal, it is regarded by Geach as incomplete in virtue of being indeterminate on the question of bare particulars. This is a decidedly odd sense of incompleteness, and I should make it clear that I am entirely unsympathetic from the start toward this argument. However, I shall have occasion to use Geach's rejection of bare particulars to make some further remarks on the epistemic sense of incompleteness derived from the doctrine of nominal essence.

The theory of bare particulars has a foothold in common sense and ordinary language; whenever someone distinguishes between an object and its properties, it sounds as if the object itself is something without any properties whatsoever. In general, the supposition that there are such objects has served two primary functions in metaphysical theories, both of which are very closely related to identity. The first function is perhaps best exemplified in Kant's First Analogy, where substance is presented as that which endures through qualitative alteration. On this view x is identical with y iff x
is the same substance as \( y \), and for Kant spatio-temporal continuity is both necessary and sufficient for the identity of a substance.\(^{44}\) Thus it is even possible for something to lose (what one might regard as) its essential properties and still be identical with that which succeeds it, as long as there is spatio-temporal continuity. The consequence of this is that the substance which persists through unlimited qualitative alteration is itself of no particular kind.

The second philosophical motive for positing the existence of bare particulars arises from the need for a reply to anyone who says that an object is merely a qualitative bundle. On this latter view there is nothing to an object other than its color, its shape, its size and all of its other qualities: there is no underlying substrata responsible for the coherence of these properties as they constitute a single, unified object. The principle which governs the identity of objects viewed as qualitative bundles is the Identity of Indiscernibles. For if an object is entirely constituted by its qualities, the only way of distinguishing \( x \) from \( y \) is by some quality which \( x \) has and \( y \) does not, or vice versa; and if they cannot be distinguished, \( x \) and \( y \) must be identical. To philosophers who have found the qualitative bundle theory of objects counter-intuitive, it has sometimes been deemed appropriate to regard the identity and diversity of objects logically prior to their possession of any
qualities whatsoever. Thus, it is in virtue of being numerically different bare particulars that \( x \) and \( y \) are numerically different, regardless of whether they go on to possess the same set of properties or not.

There are, however, decisive objections against the possibility of there being bare particulars. It is not merely than an entity without any properties could never be the object of any cognitive act and thus the necessarily unknowable "something, I know not what." There is the further difficulty that 'having no properties' -- the distinguishing mark of the bare particular -- is itself a property. To put this another way, one definition of a bare particular is "that which has properties;" but having defined a bare particular in this way, it is impossible that it in itself has no properties.

Thus, Geach is quite right in dismissing bare particulars as \textit{entia non grata}:

But is counting a nonsensical procedure if it is not applied to objects brought under the same Begriff? Some philosophers have thought otherwise: all those, in fact, who have denied the Identity of Indiscernibles..."Objects \( x \), \( y \) and \( z \)," they would say, "may be merely numerically distinct; and even if they are also different in characteristics, they will have self-identity and numerical distinction logically prior to such dissimilarities." Even apart from my thesis about relative identity, I should dismiss this view as incoherent....The doctrine of an individual's having self-identity, and distinctness from others, logically prior
to have any characteristics is absurd anyhow; apart from its characteristics an individual is nothing, and the talk of bare particulars, which still oddly survives, is manifest nonsense....It does not follow that otherwise an individual is a bundle of qualities. I suppose people are driven to the bare particular theory by finding the bundle theory incredible; however bedizened the body may be, she cannot be clothes all the way through -- we must come to bare skin at last....But we are not tied down to these alternatives....I find the idea of distinctness without distinguishing characteristics an absurd one...

It should be clear from this passage that Geach rejects not only the theory of bare particulars but also the qualitative bundle view of objects. If objects are individuated in neither of these ways, there must be some other account given for their numerical identity and diversity.\textsuperscript{45}

The theory of relative identity gives rise to a third way for the individuation of objects via sortal terms. Geach's fear is that the relation of absolute identity is one which could hold only between a bare particular and itself. His reasoning, however far-fetched, would seem to be as follows: either 'x is the same thing as y' is a complete expression or it is not. If it is not, it needs to be completed by a relativizing sortal. But if it is, and there is nothing more to say about this relation between x and y, then covert reference is made in this expression to a "mere thing" or bare particular.
This argument is either invalid or dependent upon a bizarre sense of incompleteness for identity expressions. On one hand, it does not follow from the fact that a bare particular interpretation is possible that it is reasonable or even likely. On the other hand, to require that everything which could be said of a relation be explicit in its expression is a standard of completeness which is unattainable even by the identity statements of which Geach approves (or so I shall argue in a few pages). The only thing of value to salvage from Geach's rejection of bare particulars is the principle of individuation by sortal terms, to which I turn without further delay.

This hint that the bare particular theory and the qualitative bundle theory are contrary instead of contradictory is nicely expanded by Michael Loux, who indicates his sympathies for a defense of D along the lines set out by Geach and Wiggins. Loux argues for a solution to the problem of individuation which involves neither of the above theories but rather an application of the Aristotelian doctrine of substance universals to artificial (like 'table,' 'pencil,' or 'automobile') as well as natural kinds. The problem of individuation is this: in virtue of what is it the case that objects are numerical self-identical units which are numerically diverse from all other similarly self-identical units?
The answer from the bare particular camp is that objects are constituted by the conjunction of a set of properties and antecedently individuated bare particulars; for a qualitative bundle theorist, objects are individuated by their exemplifying a unique set of properties.

According to Loux, however, there is something peculiar about the situation in which a substance universal is true of some objects which may be the basis for a more plausible view of individuation than either of the above theories. Consider the case in which a is white and b is white. 'White' is not a substance universal, and, in Loux's terminology, a and b exhibit but do not instantiate the universal 'white.' By this he means that it is the case that a and b are either numerically identical or numerically distinct, but this fact has nothing whatsoever to do with the fact that a and b are white. This is because 'white' is not a count noun; and in order to count the number of white things in a room we would have to appeal to other universals of a substantitive variety. Another way of putting this is to say that the term 'white' does not determine a kind, either natural or artificial. The reason why it does not is that for a term to determine a kind, the means should be clear on the basis of that term for telling the difference between one member of the kind and another member of the kind. Thus, the appropriate question to ask is whether it is
possible to differentiate between one white thing and another white thing just on the basis of their being white. But I do not know how this could be done, because I do not know what in the world a thing is. If you could tell me the difference between a thing and a non-thing or (to speak paradoxically) give me an example of something which is not a thing, perhaps I could then consider ways to distinguish one white thing from another just on the basis of their being white. But unless sense can be made of this initial and logically prior requirement, it remains pretty clear that 'white' is not a kind-determining universal. If it cannot be said with precision and clarity what a thing is, then no adequate criterion of identity could be derived from the expression 'one and the same white thing.'

By contrast, according to Loux, a substance universal such as 'man' does determine a kind, and anything which is a man not only exhibits but also instantiates the universal 'man.' Consider the case in which \(a\) is a man and \(b\) is a man: if \(a\) is identical with \(b\) it is because \(a\) is the same member of the natural kind indicated by 'man' as \(b\) is. If \(a\) is not identical with \(b\), it is because \(a\) is not the same member of the natural kind indicated by 'man' as \(b\) is. Thus, the identity or diversity of \(a\) and \(b\) does have something to do with the fact that \(a\) is a man and \(b\) is a man: they are either
the same man or different men. For Loux, then, this instantiation-of-a-kind relation is made to do the work of individuating in such a way that both the bare particular theory and the qualitative bundle theory are avoided. On the assumption that everything is of some particular kind, every case of identity is a case of being the same member of some kind (or, instantiation of some substance universal), and every case of diversity is a case of there being two or more members of some kind or kinds (or, instantiations of some substance universal or universals). In particular, if \( a \) is identical with \( b \), \( a \) is the same member of the natural kind of men as \( b \) (or, the same instantiation of the substance universal 'man' as \( b \).

Geach himself cites, with approval, the same point as it is found in Aquinas:

Aquinas calls our attention to a feature of Latin grammar -- that substantives are singular or plural on their own account, whereas adjectives 'agree in number' with substantives. This suggests to him a logical distinction between two sorts of terms: substantival terms, to which the question 'how many?' applies directly, and adjectival terms, to which this question applies only in so far as they are used to add a qualification to substantival terms. One may ask how many cats there are in a room; but not, how many black things there are in the room; only, how many black cats (say) there are in the room. The basis of this distinction is that the sense of 'cat' determines a sense for 'one and the same cat', whereas the sense of 'black thing' does not in the least determine what shall count as one and the same black thing.
Is it really so that 'x is the same thing as y' is either incomplete or favorable toward bare particulars? The argument that if it is complete, it implies the existence of bare particulars rests on an assumption, the extension of which to sortally qualified statements of identity (of the kind Geach approves) would show that they, too, are incomplete in just the same way. The assumption is this: if 'x is the same thing as y' is complete, then a mere thing, or a thing of no particular kind, is that to which reference is being made. Now suppose this principle is extended to a sortally qualified statement of identity: if 'x is the same man as y' is complete, then a mere man, or a man of no particular kind, is that to which reference is being made. But, of course, there are no men who are men of no particular kind. For any man, that man is either, e.g., a father or not a father. If x is a father, then the above statement of identity would not be complete unless it read, 'x is the same man and father as y.' This leads to an exorbitant standard for the completeness of identity statements, one according to which no statement of identity would be complete which did not include every sortal true of the identified individuals. This might not even be an attainable standard; but even if it is, this consequence would be most unwelcome in the theory of relative identity.

The thing to do, then, is to drop the trouble-making assumption and admit that it would be a merely
pervasive interpretation of 'x is the same thing as y' to say that this expression involves a reference to bare particulars. To do this would be to deprive the theory of relative identity of an unimportant argument against the completeness of sortally unqualified identity expressions, but the price of retaining that argument seems too great in light of its unwelcome consequences.

This objection is similar to one which was raised against the theory of nominal essences: how do we decide that 'man' is the nominal essence of 'Nixon,' when there are also many other sortals which are true of him? And wouldn't a complete list of all the sortals true of Nixon be a better criterion of identity for the correct use of the name 'Nixon' than just the sortal man? The answer to this objection consisted in saying that the nominal essence of 'Nixon,' naturally enough, should just indicate what is essential to Nixon: being the same man as Nixon. For if any of Nixon's non-essential sortal properties (being the same father as Nixon, being the same Republican as Nixon, etc.) were included in the nominal essence of 'Nixon,' one could not continue to employ them as the basis for the correct use of 'Nixon,' should Nixon lose some of these properties. Knowing that Nixon was, is, and will be the same man as Nixon for as long as he exists gives one an indefeasible criterion of identity for the correct use of the name 'Nixon' at any time during his life.
The reply to give to the present objection, then, would seem to be along the same lines. Geach wants to claim that one cannot give general identity conditions for being the same thing, because we cannot say what the difference is between a thing and a non-thing; but one can give general identity conditions for being the same man, because one can say what the difference is between a man and a non-man. Another way of putting this is to say that if \(a\) is the same man as \(b\), \(a\) will continue to be identical with \(b\) only as long as \(a\) continues to exist as a man. This makes a great deal more sense than saying, on one hand, that if \(a\) is the same thing as \(b\), \(a\) will continue to be identical with \(b\) only as long as \(b\) continues to exist as a thing, because it is impossible to say what just continuing to exist as a thing amounts to. If it amounts to anything at all, it implies something like the Kantian version of subsisting substrata, the existence of which is not curtailed by the loss of (what we would regard as) any essential properties. On the other hand, one would not want to say that if \(a\) is the same politician as \(b\), \(a\) will continue to be identical with \(b\) only as long as \(a\) continues to exist as a politician, because \(a\) could cease to be a politician without ceasing to exist or ceasing to be identical with \(b\). In this way, an essentialist perspective forestalls, on one hand, the intelligibility of identity statements such as '\(x\) is the
same thing as \( y' \) and, on the other hand, the necessity of completing such identity statements with every sortal which is true of \( x \) and \( y \).

As a move against the D thesis, a theorist of absolute identity might say that identity has nothing to do with essentialism or kind membership and present the Identity of Indiscernibles as a general statement of sufficient conditions for identity. There is no explicit mention of kind membership in this principle: if \( a \) and \( b \) are indiscernible, then \( a \) and \( b \) are identical. If it is possible to apply this principle without referring in any way to the kind of which \( a \) and \( b \) are members (or any essential property of \( a \) and \( b \)), then it could be shown that, contrary to the D thesis, identity is not a function of kind membership. So it would seem that showing this would be a very worthwhile thing for a theorist of absolute identity to undertake.

According to the standard theory of essentialism, there are some properties which an object must have for it to continue to exist as one and the same object. If it happens that an object loses one of its essential properties, it a) goes out of existence and b) is not identical with that which spatio-temporally succeeds it. Thus, if I set a torch to my table and end up with a pile of ashes and a cloud of gases, an essentialist would probably want to say that a) the table went out of existence
and b) the table is not identical with the pile of ashes and cloud of gases. Let us call the table 'a' and the pile of ashes and cloud of gases 'b'; and let us say that the table exists at \( t_1 \) and the pile of ashes and cloud of gases exists at \( t_2 \).

How could the Identity of Indiscernibles be applied to this situation? And, more importantly, can it be applied without any recourse to a theory of essentialism and without any mention of kind or kinds to which a and b belong? The Identity of Indiscernibles would first have to be modified to fit cases of identity and non-identity over time: if whatever is true of \( a \) at \( t_1 \) is true of \( b \) at \( t_1 \), and conversely, and whatever is true of \( a \) at \( t_2 \) is true of \( b \) at \( t_2 \), and conversely, then \( a \) is identical with \( b \).

Now it is clear that if the antecedent of this principle is to be true, \( a \) will have to exist at \( t_2 \) and \( b \) will have to exist at \( t_1 \); otherwise, nothing could be true of \( a \) at \( t_2 \) or \( b \) at \( t_1 \). It is also clear that if \( a \) does not exist at \( t_2 \) or \( b \) does not exist at \( t_1 \), the antecedent of this principle cannot be true. So there has to be some further principle for deciding whether \( a \) exists at \( t_2 \) and \( b \) exists at \( t_1 \); and the only likely one that suggests itself is a principle of essentialism. According to the theory of essentialism, there are grounds for saying that the table does not exist at \( t_2 \) and cannot be identical with the pile of ashes and cloud of gases,
spatio-temporally continuous though they be; because in being burned up, the table lost its essential properties. I know of no other way of deciding whether or not the table exists at $t_2$, so I conclude that identity is indeed a function of kind membership. This is just what the D thesis states: sortally unqualified statements of identity are incomplete, because in the theory of absolute identity, identity is not a function of kind membership.

Thus, it may be said in all fairness that there is no danger of bare particulars being implied by sortally unqualified statements of identity. The fear that they do so is groundless, and they must not be judged incomplete on this basis. However, if the rejection of bare particulars leads to an essentialist perspective on objects, as it does in the case of Geach, an epistemic sense of incompleteness might more plausibly be argued for sortally unqualified statements of identity. In this epistemic sense, the insertion of a sortal indicates the kind with respect to which identity is judged to hold. The point is that one could not know whether identity holds or not without knowing what sort of thing is the subject of an identity claim -- unless Kant's criterion of spatio-temporal continuity is adequate. Wiggins has extensive arguments that a spatio-temporal criterion of identity must be supplemented by the knowledge of the sortal under which a spatio-temporal tracing operation is
performed. It appears that one cannot trace an object simply qua thing, but only qua man, dog, mountain, city, etc. For this reason, then, a sortally unqualified statement of identity is incomplete in the epistemic sense.
Section G: Conclusion

In the introduction to this chapter I distinguished five senses of incompleteness in sortally unqualified identity statements, the disclosure of which Geach's arguments for D are designed to effect. In assessing the evidence for D, I have found inadequate arguments for incompleteness in three of these senses. The grammatical sense of incompleteness in 'a is the same as b' can be avoided by using expressions such as 'a is identical with b' and 'a = b.' The sense of incompleteness based on the multiplicity of identity relations is not demonstrable, because the evidence that identity is a multiplicity of relations is inconclusive. And the "metaphysical" sense of incompleteness, according to which sortally unqualified statements of identity are favorable toward bare particulars, was found to be gratuitous. There is no real danger of bare particulars in the theory of absolute identity.

This leaves two senses of incompleteness which seem to me to be substantiated by good arguments: the epistemic sense, derived from the theory of nominal essences, and the technical Fregean sense. The epistemic sense of incompleteness is demonstrated by the impossibility of knowing whether or not a sortally unqualified statement of identity is true. The application of Leibniz's Law or the principle of spatio-temporal continuity to any
particular case of identity is dependent upon the knowledge of a sortal which governs the identity in question. And the close connection between identity and counting is a good reason for supposing that if numerical attribution if relative to a sortal, then so is the attribution of identity.
Conclusion

My line of thought has led from the rejection of properties to a decided preference for LLI (as opposed to LLII), and thence to the (inter-)theoretic relativity of identity by way of Tarski's semantic conception of truth. As for the relativity of identity to sortal terms, I have been convinced by two arguments for completeness of sortally unqualified identity statements: the one for incompleteness in the epistemic sense (based on Geach's doctrine of nominal essences) and the one for incompleteness in the counting sense (based on Frege's doctrine of numerical attribution). At various points along the way, I have incurred commitment not only to these views but also to others, such as those of Quine on ontological relativity and those of Geach on how reference with proper names is achieved. Perhaps there are other ways of reconstructing the theory of relative identity without appealing to these controversial doctrines, but I have seen them as lending a certain coherence to Geach's position.

Relativism -- whether moral, epistemic, conceptual or ontological -- is often seen by philosophers as, at best, a temporary phenomenon, a problem as yet unsolved. For those hard-headed advocates of common sense, the value of Geach's work is measured by how well it exposes faults in the present structure of absolute identity. Whether
the theory of relative identity is merely a prolegomenon to the development of new and better foundations for absolute identity, I cannot say at this point. For those so disposed, a natural way to begin would be to reconstruct the notion of a property; because few will be very comfortable with the rejection of properties in Quine and Geach. I suspect that the trouble with properties can be traced to their being construed as entities of some sort. Quine certainly views them in this way by calling them intensional objects, and his rejection of their existence is based on the impossibility of formulating adequate criteria of identity. This is something which should be possible, at least in principle, for every kind of identity whose existence is acknowledged. But perhaps existence is wider than the panoply of entities: mass names are not said to denote entities, yet what they denote exists. Actions, events, states of affairs, thoughts, when said to exist, are not always construed as entities; and perhaps the same would be true of properties. We could then insist with Quine that there be no entities without identity and yet remain open to the existence of non-entities.

The reintroduction of properties would allow for the possibility of property-based indiscernibility upon which, in turn, absolute identity might be founded anew. The unrestricted sharing of properties, unlike the
unrestricted sharing of predicates, runs no risk of semantic paradox; for the possession of a property is not a semantic notion.

However, these glorious prospects do not move me to regard the theory of relative identity as merely transitional. I am not convinced that we can get along without properties, and the enterprise of reintroducing them may be more misguided than difficult. If talk about properties can be transposed, without remainder, into talk about eternal open sentences (as Quine proposes), the importance of positing properties will dwindle considerably.¹ And the withdrawal of entity-status from properties does not mean that they may be admitted without criteria of identity. Entity or not, if there is no telling whether a property is the same or not, we have no business committing ourselves to its existence.

For a partisan of relative identity there remain many leads in the theory yet to be followed out. Some of them have been dealt with in this work, but others will require further investigation. One such problem is how to characterize sortal predicates: I have taken this notion as primitive and in no particular need of clarification, but I now believe this matter to be less simple than it looks. In particular, Feldman has uncovered rampant confusion in the literature (including the works of Geach) over the question of how to interpret sortal
predicates. After considering several non-equivalent uses of this category, Feldman concludes that sortals are philosophically worthless because of the carelessness with which they are used. I should have to regard this as a hasty conclusion and hold out for the possibility of formulating more adequate conditions for identifying sortal predicates.

Another loose end in the theory of relative identity is the problem of how to construct denials of identity. The meaning of a sortally qualified denial of identity, such as 'a is not the same F as b,' is ambiguous: it could mean that a and b are different F's, or that a is an F and b is not, and, conversely, that neither a nor b are F's. Given this ambiguity, it is not clear whether in the theory of relative identity denials of identity, like affirmations of identity, must be sortally qualified. Geach never takes up this problem, in spite of the fact that he would probably want the theory of relative identity to entail a theory of relative diversity.

The final judgment on relative identity, then, must await the results of work on these and other puzzles that remain in the theory. I have attempted to remove some of the major obstacles to Geach's view of identity, with hope that its ingenuity will be appreciated more fully.
Notes: Introduction


2 See Chapter IV.

3 See Chapter II.
Notes: Chapter I

1 Leibniz enunciated not this principle but its converse: the Identity of Indiscernibles. See his "Fourth Paper to Clarke," 4-6, and "Discourse on Metaphysics," IX. However, I adhere to standard practice in referring to the Indiscernibility of Identicals as Leibniz's Law.


5 Ibid.


7 Quine, Logical Point of View, p. 9.

8 Geach, Reference and Generality, pp. 34-35.

9 Ibid.

10 Ibid., pp. 31-34.


12 This slogan is frequently attributed to Quine, but I am unable to find it in print; perhaps it was a spoken remark. See Philosophy in America, ed. Max Black (Ithaca: Cornell University Press, 1965), p. 182; and Logic and Ontology, ed. Milton K. Munitz (New York: New

13 Quine, Ontological Relativity, p. 13.


16 Ibid., p. 261.

17 Ibid., p. 262.

18 Ibid., p. 263.

19 Ibid.

20 Ibid., p. 274.

21 Ibid.

22 Ibid., p. 263.

23 Quine, Logical Point of View, pp. 29-32, 143.

24 Ibid., p. 148.


26 Quine, Word and Object, p. 199.

27 Quine, Logical Point of View, p. 4.

28 Geach, "Identity," pp. 3-5.
Ibid., p. 5.

Ibid.


Ibid.


Quine objects to the use of predicate letters as quantifiable variables in Philosophy of Logic on the grounds that "variables eligible for quantification... belong in name positions." (p. 67). I do so here only as a matter of convenience; the Wiggins proof employs this form of Leibniz's Law. For those impressed by Quine's worries over second-order logic, a schematic form of Leibniz's Law would not make any difference to any of my arguments. For the view that Quine is needlessly concerned about quantified predicate letters, see George Boolos, "On Second-order Logic," The Journal of Philosophy 72 (1975), 509-527.

See Chapter III, Section E.
Notes: Chapter II

1. Geach, "Identity," p. 3. Geach also extends to mass terms the status of covering sortal for identity. See his Reference and Generality, pp. 39-40; "A Reply," p. 556; "Ontological Relativity and Relative Identity" in Munitz, Logic and Ontology, p. 289; and footnotes 5 and 6 of this chapter.


6. Ibid.


8. Ibid., pp. 7, 29.


11. This distinction belongs to Keith Donnellan, "Reference and Definite Descriptions," The Philosophical Review 75 (1966), 281-304.


14  Ibid.
16  Wiggins, Identity, p. 69.
17  Geach, "Identity," pp. 4-5.
18  Ibid.
19  Geach, "Ontological Relativity," p. 298.
20  Geach, "Identity," p. 5.
21  Ibid.
22  Ibid.
23  Ibid., pp. 5-12.
24  Wiggins, Identity, Part One.
25  Perry, "The Same F," p. 188.
29  Ibid., pp. 69-70.


33 Ibid., pp. 213-215.


38 Geach, "Identity," p. 7.


40 Quine, Ontological Relativity, pp. 34-35.


42 Ibid.

43 Ibid., p. 548.
Notes: Chapter III


5. Whether strongly or weakly, I distinguish these two grades of reflexivity in Section E of this chapter.


Ibid., p. 59.


W.V. Quine, "Reply to Professor Marcus," *Synthese* 13 (1961), 325-326.


Notes: Chapter IV

1 Geach, "Identity," p. 3.

2 Ibid.


5 Geach, "Identity," p. 3.


7 Wiggins maintains that it does in Identity, p. 27.


9 This analogy is used by Perry in "The Same F," pp. 184-185.

10 Geach, Reference and Generality, p. 152.

11 Ibid., p. 191.

12 Geach, Mental Acts, Chapter 16; and Reference and Generality, pp. 43-44.

13 Geach, Mental Acts, p. 71.

14 Ibid., p. 70.

15 Geach, Reference and Generality, p. 122.
16  Geach, Mental Acts, pp. 67-68.

17  Geach, Reference and Generality, pp. 31-34.

18  Geach, Mental Acts, pp. 66-67.

19  Geach, Reference and Generality, p. 43.

20  Ibid., p. 27.

21  Ibid., pp. 43-44.


29  Ibid., pp. 351-352.


32 Geach, *Reference and Generality*, p. 50.

33 Geach, "Identity," p. 3.


38 Geach and Black, *Translations*, p. 81.


47 Ibid., pp. 777-780.

48 Geach and Anscombe, Three Philosophers, p. 86.
Notes: Conclusion

1 W.V. Quine, *Word and Object*, p. 209.

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Quine, W.V. "Review of Reference and Generality." The Philosophical Review 73 (1964), 100-104.


