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Ontological Relativity and Relative Identity

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In this paper I return to a topic I have discussed several times before and try to make connections with recent work of Quine's. I also shall make some comments on recent criticisms of my thesis that identity is relative.

I begin by saying what sort of term I take "identity" to be. This term, or rather the corresponding concrete term "identical" or "the same," belongs to the family of terms that medievals called transcendental: it belongs with "exists" and "something" and "one" and "true" and "good." "Transcendental" referred to the way these terms jump across any conceptual barriers between different kinds of discourse; they are, in Ryle's word, topic-neutral. (The term "good," traditionally one of this company, might appear an odd man out; for one thing, it might appear to be of less concern to logic than the others. But after all "good" cannot be kept out of logic; some inferences are good and others are not, and it is for logic to sort them out.) Of any pair of transcendentals the medievals say they convert, *convertuntur*. I have not actually found this said of "exists" and "same," *ens* et *idem*; but it is said of "one" and "exists," *unum* and *ens*; and as the phrase "one and the same" suggests, "one" and "the same" are very near akin. Of course we get nowhere if we try to construe the converting of transcendentals as logical convertibility, coextensiveness, or again as interchangeabil-

ity *salva veritate*; but if we look at the Latin etymology of "convert," we get an apt and helpful metaphor. The transcendentals turn together, like a train of gear wheels. Given these relations between transcendentals, I need not apologize for a paper on identity in a series devoted to ontology. For, as Quine has said, no entity without identity; he and I agree in regarding as *entia non grata* those philosophically postulated entities for which there is simply no telling whether men are talking about the same thing or not. And again Quine and I would both say: No identity without entity. Nonentities are not there, to be the same or different; if the obligation to recognize this is what 'free logic' promises to free us from, then 'free logic' is thus far sophistry and delusion. In the first edition of my *Reference and Generality* insufficient emphasis on these points led to the idea that I countenanced 'intentional objects' which lacked a criterion of identity; I do not and never did, and I added a sentence in the emended edition to say so. More lately I have written about intentional identity. All I need say here on that perplexing topic is that intentional identity, like alleged identity, is not a variety of identity; if a lot of people *mean* to refer to the same thing, they may not manage to do so.

The term "criterion of identity," which I have just used, is closely tied up with the way I take identity to be relative; but this is a nasty ambiguity about the term, which I must now try to clear up. It may on the one hand be a matter of what standard we judge by when we judge that identity obtains—or equally, what standard we hypothesize by when we merely suppose, without judging, that identity obtains. (For here, as in other regions of philosophy, we must remember Frege's all too easily forgotten point about assertion, we must not construct a theory that only fits judgments or assertions of identity, forgetting mere suppositions that identity holds.) This is how I shall be using "criterion of identity." Or, on the other hand, it may be a matter of how we recognize identity. I recognize a man by his face and voice, not by his brain; but the criterion of identity, in my sense, answering to the phrase "the same man" is one to which the brain is far more relevant than the face or voice. Switching brains might raise some difficulties as to which man was which after the operation; but if a man suffers facial damage but no brain damage, and plastic surgery gives him a different face and voice, then he is nevertheless plainly the same man as before—the case is not marginal and doubtful—even though his friends may find the change uncanny. This distinction between two senses of "criterion" may not always be easy to draw; it is not therefore illusory.

With "criterion of identity" thus explained, I have to say yet

once more that the thesis that identity is always relative to such a criterion seems to me a truism, like Frege's connected thesis that a number is always relative to a *Begriff*. It is as nonsensical to speak of identification apart from identifying some *kind* of thing, as to speak of counting apart from counting some kind of thing. A numerical word demands completion with a count noun; similarly for "the same" and "another." ("The same" also goes with mass terms, as when we say that the same gold was a crown and then a shapeless lump and then a crown again. Little has been published on the complex logical likenesses and differences between mass terms and count nouns; most logicians have followed the precedent of Aristotle's *Prior Analytics*, where snow and swans figure alike as examples of what is white, and pitch and crows, as examples of what is black. An unpublished doctoral dissertation by Helen Cartwright contains valuable work on this problem. It would take me too far to discuss mass terms further in this paper.)

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 (to give the doctrine its slightly misleading traditional name). "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. Here as elsewhere, the notion of logical priority that is introduced is far from being clear and distinct. In modern logic texts we find very little mention of logical priority. I suspect that appeals to logical priority are a hangover from the era when Euclid's geometry was to all intents the only deductive system that had been worked out. It was thus natural to think that in a system some terms are indefinable, others inherently definable; some propositions are axiomatic or self-evident, others essentially derivative. We now know that one and the same deductive system may be formulated with different choices of primitive terms and axioms; what is primitive in one formulation may be a defined term, or, as the case may be, a proved theorem, in the other formulation. Knowing this much, we should take a hard look at any appeal to considerations of logical priority; such considerations are not necessarily worthless, but should not move us too readily.

The doctrine of an individual's having self-identity, and distinctiveness from others, logically prior to having any characteristics is anyhow absurd; apart from its characteristics an individual is noth-

ing, and the talk of bare particulars, which still oddly survives, is manifest nonsense. Adroit shifts of wording or of stresses may enable a philosopher to persuade himself and others that he is not contradicting himself when he says that an individual, or some ontic core of an individual, is a qualityless particular, qualityless precisely *because* IT is what HAS the qualities; somehow the emphasis, instead of making the self-contradiction manifest, serves to conceal it.

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 lady may be, she cannot be clothes all the way through—we must come to bare skin at last. And some of course are driven the opposite way—Brand Blanshard for one. But we are not tied down to these alternatives. Think of a triangular area and its sides. We need neither identify the triangle with its sides, nor hypostatize a sideless triangle that owns or wears the sides and is sideless precisely on that account. It was my great good fortune that I read McTaggart's *Nature of Existence* at a formative age and was thus made immune for life to these opposing errors. In this vein of thought, again like McTaggart, I find the idea of distinctness without distinguishing characteristics an absurd one; you might as well try to think of two distinct plane triangles bounded by the same three sides. And, yet once more like McTaggart, I am not saying distinctness requires qualitative difference; difference in relations is enough.

I have gone into these murky regions only because I am sure some of the resistance to the relative identity thesis has its source here; this is clear as regards some published criticism. Even when people do not explicitly accept, or would explicitly reject, the idea of bare 'numerical' difference, I think the idea sometimes works in them subterraneously; if so, it is well to bring it into the open.

I return, then, to the Fregean idea: the idea of counting, not 'numerically different' things, but things brought under a *Begriff*. Counting, or rather numerical quantification, is explained in logic books by way of identity: "there are three . . ." let us say by "for some x , y , and z , $x \neq y$ and $y \neq z$ and $z \neq x$ and . . ." where of course " \neq " is read "is not identical with." I have to maintain that the identity is relative. I shall first show that we can and do use relative identities to count by and that this procedure need raise no theoretical difficulties.

But first I need to specify which predicables can express relative identity. It would be useless to say: those predicables which are formed by substituting a count noun for "A" in "the same A as." For such an answer would just raise further problems: What is a

count noun? What is the syntactical liaison between such a noun and the prefix "the same"? Why can some nouns enter into the liaison and not others?

We escape these difficulties by saying that predications of a count noun "A" does not serve to form the predicable "is the same A as," but the other way around: as I said in *Reference and Generality* (§ 109) the one-place predicable "is an A" is definable as meaning "is the same A as something or other." This explanation may seem to go the wrong way round. But it is formally just like defining "is a brother" (say) is "is brother of somebody." Here also we could not proceed the other way around; we could not supply a logic and semantics for the phrase "of Jane" so as to explain how this fuses with "is a brother" to form "is (a) brother of Jane." (In this case then we *can* say that logical priority obtains: "brother of" is logically prior to "brother").

We shall treat "the same" in "is the same A as" not as a syntactically separable part, but as an index showing we have here a word for a certain sort of relation: just as "of" in "is brother of" does not signify a relation by itself (as if the phrase were "is a brother, who belongs to") but serves to show that the whole, "is brother of," stands for a relation. For logical purposes, a *count noun* is a word related to this sort of relational term in just the way that "brother" is to "is brother of." And here we have no need to bring in any syntax more complicated than can be expressed in standard first-order quantification theory.

What sort of relation, then, do these phrases "is the same A as" express? Plainly it must always be an equivalence relation—one that is symmetrical and transitive, and consequently reflexive in its field. Thus the definition of "is an A" by "is the same A as something or other" could be replaced by a neater definition: "is the same A as itself." I had already seen this possibility when I wrote *Reference and Generality*; but some odd psychological quirk makes the use of this *definiens* appear a piece of trickery, so for expository purposes I used the more complicated form.

Could any expression for an equivalence relation serve to define a count noun? When I read this paper in New York, Donald Davidson suggested a reason to the contrary: Areas and time stretches can be identified but not counted. This connects with a difficulty, already raised by Frege (*Grundlagen der Arithmetik* page 66), as to which *Begriffe* determine a cardinal number. It has to do with the divisibility of what is A into parts that are also A, or again with the combinability of parts that are A into a whole that is again A. (And here we might have to return to the topic of mass terms.) I shall not try

to resolve this problem here, for we need not doubt that predication of a count noun is always explicable, in the way I have stated, in terms of *some* equivalence relation; it is only that *not all* equivalence relations will serve this purpose, and the exact restriction required is not yet clear.

The equivalence-relation expression "is the same *A* as" is of course not paraphrasable by "is an *A* and is (absolutely) the same as"; this equivalence will not hold definitionally, nor will it be provable. Some thinkers (such as David Wiggins) have put forward theories of 'relative' identity from which it would follow as a logical consequence that 'relative' identity is simply absolute identity restricted to a certain field. Obviously any such theory differs only in a trivial way from a theory of absolute identity—that is, so far as the *logic* of identity goes: I cannot here discuss the philosophy in which this logic gets imbedded. My theory does not admit of such a trivialising twist.

Let me now show how we can use the relative identity of "is the same *A* as" to fix an answer to the question "How many *As*?" and thus justify me in saying that "*A*," defined in my style, is a count noun in the logical sense. I shall specify a way of assigning numbers to such objects in a domain as are *As*—each of them the same *A* as something or other. We assign 1 to an object *x*, and to whatever is the same *A* as *x*, and to nothing else; we assign 2 to an object *y*, and to whatever is the same *A* as *y*, and to nothing else; and so on. We must not assign two numbers to any object in the domain; this condition can be fulfilled because the things that are the same *A* as *x* cannot overlap the things that are the same *A* as *y*; equivalence classes must either coincide or be disjoint. The number *n* eventually reached will be the count of *As* in the domain under consideration. It is easy to see that if "*A*" and "*B*" represent different count nouns, the count of *As* in a domain may be different from the count of *Bs* even if everything in the domain both is an *A* and is a *B*—that is to say, both is the same *A* as something and is the same *B* as something. This may seem to introduce nonextensional contexts, "is the same . . . as" and "the count of . . . *S*," for count nouns. But a moment's thought should dispel this appearance. Quite similarly, in a domain in which whoever is a father is an uncle and conversely, "is father of" and "is uncle of" need by no means coincide; but this does not mean that in the construction "is . . . of" there is a nonextensional argument place for nouns like "father" and "uncle."

In the light of this theory of count nouns, we see once more how very wrong is the two-name theory of predication—the theory

that the fundamental sort of predication is the joining of two names with a copula, names that may be empty or nonempty, shared or unshared, and that the predication is true iff we thus join two names of one and the same thing. Leśniewski's 'ontology' was a revival of this medieval view (The epsilon generally used as a copula in 'ontology' is nonsymmetrical, and has a more complicated semantics than that I have just given; but 'ontology' *could* be formulated with a symmetrical copula, as Lejewski has shown; and then we could say, as I did, that this copula *truly* joins two names iff they name the same object.) But it is hopeless to try and explain "is the same *A* as" in terms of the shared name "*A*"; we might as well try to explain "is uncle of" in terms of the shared name "uncle." In both cases, the true explanation goes the other way. In the last paragraph of *Reference and Generality*, emended edition, I expressed a hope of some day investigating a program, inspired by Leśniewski's work, wherein shared and unshared names could alike be inserted in the blank of "is the same . . . as." I have now carried out this investigation; my verdict is that the program is theoretically unsound because this class of predicables are not derived from names by any logical procedure.

Speaking of names' designating the same thing, we may here remark how futile is a certain controversial move of semantic ascent (to use Quine's handy term). People have challenged me to say whether two designations designate the same thing, or again, whether a list is nonrepetitive: yes or no! But of course a relativizer of identity, if he has his wits about him, will refuse the challenge; if the question "Are *x* and *y* the same?" needs relativizing, if the plain "the same" must be replaced by a specific identity predicable, there also we must complete the question "Do these designations designate the same?" by adding a count noun at the end; and likewise the question "Is this a nonrepetitive list?" must be changed—we must say "list of *As*," where "*A*" is a count noun. (For the record, *I did* have my wits about me on this matter when I wrote *Reference and Generality*: see page 82 and page 177, footnote.)

The objection may be raised (it has been) that I have no right to talk as I have done about a domain of quantification, a universe of discourse; a domain must be given by an absolutely nonrepetitive bit or not at all. The objectors seem to misunderstand the business of assigning interpretations in predicate logic. In the first place, we may need to consider indenumerable domains. Such domains just cannot be listed, be the list finite or infinite. Second, interpretation by means of a finite and listed domain in no way requires that the list be nonrepetitive. Universal quantification will then answer to a finite

conjunction and existential quantification to a finite disjunction, and neither conjunction nor disjunction gets different truth-conditions from repetition of a conjunct or disjunct. (This feature, idempotency, distinguishes conjunction and the ordinary disjunction from exclusive disjunction; exclusive disjunction is commutative and associative like the other two connectives, so that we may write (say) " p aut q aut r " without bracketing and in any order, but " p aut p aut q " reduces to " q ," not to " p aut q ."

Let me now bring these abstract considerations down to earth by going over some examples I have previously used in this controversy. The word "word," I pointed out, is ambiguous. It may mean "token word" or "type word," or "dictionary-entry word," or various other things. Despite this, I may specify as the universe of discourse the words in a given volume in my room at Leeds; for I could give each word in the volume a proper name and get a finite list of them. The ambiguity I have just mentioned is an ambiguity over what shall count as *the same* word; but since a list specifying a domain anyhow need not be nonrepetitive, this need not worry us. The count of token words, of type words (identified by sheer sameness of spelling), and of dictionary-entry words, may be different in each case; all the same, each thing in the universe is the same token word as itself and the same type word as itself and the same dictionary-entry word as itself, and thus both is a token word and is a type word and is a dictionary-entry word. I dismiss the protest that this result is incoherent because the entity in question must be of only one of these three kinds; there is no "must" about it. We have in view an entity that belongs to the field of those different equivalence relations, and therefore comes under three different counts using different count nouns; each of the count nouns applies—that is how count nouns are used. It is on the contrary the question "But which is it really?" that is incoherent and unintelligible.

Similarly for the matter of men and surmen. I defined "— is the same surman as—" to mean "— and — are both men and have the same single surname." Accordingly, if every inhabitant of Leeds has just one surname, then every inhabitant of Leeds both is a man and is a surman; he (or she) is the same man as somebody and also the same surman as somebody. And further, just as I said, if x is a surman in Leeds, then x has a heart in his breast, guts in his belly, and so on, just as I said. These predicables will be true of x in their ordinary everyday sense; to make these predications true, we need not use words in some artificial sense that I have negligently failed to specify. All the same, if we count the men in Leeds and the surmen in Leeds, we shall get different counts; the count

of surmen will be smaller. But this does not mean that the surmen in Leeds are only a subclass of the men, or perhaps are a class of nonhuman androids. I cannot have intended the definition of "is the same surman as" that I actually gave; whatever I said, I must have meant that a surman is a class of men, or perhaps a whole with men as parts! And then how could a surman have a heart in his breast and guts in his belly, except in some quite unnatural sense of the words? How indeed? But after all the term was mine, defined by me; and nobody has shown such incoherence in the definition as calls for conjectural emendation of my text to restore sense. If a definition that was not mine is wished upon me, then things get into a mess; but that is hardly my fault.

I claim, then, to have explained relative-identity predicables, their connection with count nouns (in the predicative use), and the procedures of counting, without internal incoherence and without any departure from standard predicate logic; moreover, I have avoided making "is the same A as" equivalent to "is an A and is absolutely the same as." At this point someone may say: "Why, Geach has simply trivialized his relative-identity thesis!" But this claim may reveal a state of the discussion that I should be glad to have brought about. For a logical thesis of this kind ought to look trivial when it is once properly understood. What is not always trivial is the work of removing obstacles to understanding. What could be more banal than what I have elsewhere styled *the* Frege point, namely that a proposition's sense and truth-value do not depend on whether it is actually asserted or merely considered? And yet, as I have argued elsewhere, failure to grasp this point has led to the writing of confused and misguided philosophy by the ream. So here: If at the end of the day my account appears trivially true, all the same the confusions that made it seem unacceptable were indeed great, and their removal was a worthy task. Moreover, we have gained a positive insight into the logic of count nouns.

What I have so far said relates to certain one-place and two-place predicables; I now have to make some remarks about proper names. Quine has often insisted that proper names need not come into predicate logic; so agreement on what I have thus far said need not be prejudiced if what I say about proper names should prove less acceptable. I have long maintained that any given successful use of a proper name is tied to identification by some definite criterion of identity. I see no reason to change my mind or to repeat my old arguments; I shall simply attack two particular errors. First, it is certainly not enough to regard a proper name as clinging to something spatiotemporally continuous with what was originally christened or

labelled with the name. Starting with the region occupied by a certain newly baptized baby, one could trace a continuously varying series of regions ending up with the region occupied by any arbitrarily chosen man a year later (a strip cartoon would serve to bring out my meaning); it does not follow that every man has an equal right to count as the bearer of the name thus conferred on the baby. Again, if we could believe in Epicurean sempiternal atoms, the very collection of atoms that was the baby's body at the moment of baptism would still be there forty years on though afar and asunder; and this scattered collection would not be lawful heir to the name either. Of course there is in this case only one continuously varying series of regions that is occupied throughout by the same *human being*; and of course the intention of the name-conferring ceremony is just that the name shall stick to one and the same human being.

Secondly, from time to time people doubt whether it need be an equivalence relation that is expressed by (say) "is the same person as" and by the continual use of a proper name. Might not the relation fail to be, for example, unrestrictedly transitive? Those who suggest this do not know what they would be at. If we think in terms of proper names, then personal identity is *shown* (to use the language of Wittgenstein's *Tractatus*) by repetition of a proper name; so lack of transitivity would mean that we might have "*Fa* and *Ga*" and "*Ga* and *Ka*" both true but "*Fa* and *Ka*" false. Or perhaps it would be fairer to think of a temporal "and" meaning "and then" or "and later on." Perhaps it is being suggested that "*Fa* and later on *Ga* and later on *Ka*" could be true but "*Fa* and later on *Ka*" false. These are not minor revisions in the logic of proper names; those who propose nontransitive personal 'identity' have assuredly not seen the need for such revisions, let alone, thought them through.

What is supposed to have shown that we ought to regard non-transitive identity as possible is scientific information about the fission and fusion of unicellular organisms, together with science fiction about the way memory might survive the changes if they happened to a higher species like ours. But of course the biological facts about fusion and fission in no way call for a revised logic of identity. A *Punch* cartoonist once supplied a series of pictures of an amoeba in fission with the captions: "I'm all alone in the world—so I've got to be—father and mother—to you two kids"; he clearly grasped the logic of identity in its application far better than some philosophers. (I suppose they would wish to replace "to you two kids" by "to myself"!)

As for science fiction, we must notice that fiction in general, science fiction in particular, even when 'convincingly' written, often

contains inconsistencies; *The Time Machine* is quite grossly inconsistent, which does not stop it from being a good and 'convincing' story. Indeed, when the inconsistencies are spelled out we may admire Wells all the more for having got away with them by his narrative skill. If one person remembers himself doing the deeds of each of two different coexisting people, or if two different coexisting people each remember doing the deeds of one and the same person, then at least one set of memories is deceptive and both may be; and there's an end of it. (There is, by the way, no objection to saying that some memory is deceptive or wrong or muddled or positively inventive; we can and do say such things, whatever ordinary-language philosophers may contend, and whether or not the dictionary backs them up.) The arguments against memory as a criterion of personal identity are old, well known, and to my mind conclusive; I need not repeat them. And memory eked out with the imperfect bodily continuity that would survive fusion or fission is no better as a criterion than memory by itself. Even in face of actual strange cases, the logic of identity and of proper names is too central to our conceptual scheme to be lightly revised; we are not likely to revise it merely in order to concede a piece of science fiction describes a possible state of affairs.

I now turn to the final topic of my paper. Someone may object that even if I have made good sense of relative identity, I have not shown that a theory is incapable of expressing absolute identity. Indeed, if any theory is to be interpreted, must there not be an absolute identity and nonidentity for the objects that are being quantified over? (I use Quine's term "quantify over," as he does, quite differently from "quantify"; what we *quantify* are the expressions we prefix quantifiers to—as in "Hamilton quantified the predicate"—but what we *quantify over* are the things we are talking about.) Can we have an ontology at all without absolute identity? And if identity can only be relative, how much ontological relativity does this let in?

In the first place, our theory need not be capable of expressing absolute identity conceived as the contradictory of 'purely numerical' difference, for there is no such relation. It is a particularly futile semantic ascent to stipulate that a predicable of a language shall express this sort of identity, and then call this "a complete semantical characterization in the metatheory."

Next, we can of course define for a given language what it is for a predicable to be an identity predicable (I-predicable) of that language. For our present purposes, the definition may be given in words as follows: A predicable is an I-predicable in L iff, whenever this predicable is true in L of *x* and *y*, any predicable of L whatsoever is true of *x* iff it is true of *y*. Quine has shown how to construct an

I-predicable for a first-order extensional language L , even if no undefined predicable of L is an I-predicable. But if x and y satisfy an I-predicable of L , that guarantees only that they are indiscernible so far as the predicables of L can show—not that they are absolutely indiscernible.

For absolute indiscernibility we should need to have: Whatever is true of x is true of y , and conversely. Here, the domain of "true of" would not be restricted to the predicables of some specified language. Now the types of paradox that Grelling and Richard constructed certainly seem to show that an unrestricted "true of" is inadmissible; unless the domain of "true of" is restricted to predicables of some specified language L , "true of" just cannot figure safely in our semantic vocabulary. So if we say "Whatever is true of x is true of y , and conversely" without restricting "true of" to the predicables of some language L , it is not clear that we have managed to say anything. The absolute identity that was opposed to merely numerical difference is a chimera; absolute indiscernibility is a will-o'-the-wisp that we pursue in vain.

Is there any other way of salvaging absolute identity? In an earlier paper I suggested one. I got the idea for this by reading Quine's works, but textual discussion of them to decide whether I understood them aright would be a tedious irrelevance. Let us just consider the suggestion on its own merits. Could we perhaps systematically construe the quantifications in each language L so that entities x and y which we are quantifying over are *absolutely* identical where the I-predicable of L is true of them; that is to say, when x and y are indiscernible in L ?

I tried to show that this suggestion leads to a baroque Meinongian ontology. It is largely my own fault that my argument was misunderstood, for I failed to bring out the important differences between a language and a theory. A language normally contains the negations of all its sentences; a theory, one hopes, will not contain the negations of all its theses. A language, or its speaker, need not be ontologically committed to whatever a sentence of the language affirms to exist; but a theory, or its holder, is ontologically committed to whatever a thesis in the theory affirms to exist. (Some people have certainly at least slurred over this distinction in discussing Quine's view of ontological commitment.)

A language may contain sublanguages, and a theory, subtheories; in each case the relation is the *timeless* set-theoretical relation of a class to a proper subclass. It is quite normal set-theoretic jargon to speak of obtaining one class from another by adding or omitting members; of course, this jargon does not refer, as some critics seem

to suppose, to acts of adding and omitting members, or even to events of members' coming to be added or removed. (I am reminded of an Italian critique of Bertrand Russell that I once read; after putting the *Principia* definition of the successor function reasonably well into the vernacular, the author protested that we men were in no position to obtain a thirteen-membered class by adding a new apostle of Christ, marshal of Napoleon, or sign of the Zodiac to the twelve original ones!) When I spoke of adding predicables to a language, my critics took me to be speaking of a development of knowledge; when I spoke of omitting predicables, was this 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.

A subtheory may be stated in the same language, and have the same vocabulary, as the main theory. But if a sublanguage omits part of the vocabulary of a language, then those sentences of the main theory that contain the omitted predicables may themselves be omitted from the theory so as to get a subtheory. (The word "omitted" must be taken in the way just explained.)

The relation between a language and a sublanguage, or a theory and a subtheory, requires not only equiformity but also correspondence of truth conditions between any sentence in the smaller class and some sentence in the larger class. This is most important, for it is because of this that any ontological commitment of a subtheory carries over to the main theory. Of course this would not hold if a sentence of the subtheory, though spelled the same way, were reinterpreted in the main theory so as to get different truth conditions; but that is not how I conceived the relation between a subtheory and the main theory. It is, of course, flatly inconsistent to say that as a member of a larger theory a sentence retains its truth conditions but not its ontological commitment.

Given this relation between a theory and its subtheories, we can see what unacceptable results follow from the attempt to construe the quantifiers in a given language as ranging over entities for which the I-predicable of the language expresses *absolute* identity. Suppose, for example, that we have in a sublanguage no predicables to distinguish two men with the same surname. Then if a theory T in the main language is ontologically committed to the existence of men, the fragment of T in the sublanguage will be ontologically committed, *if construed this way*, to the existence, not just of surmen, but of creatures for whom the predicable "is the same surman as," as I defined it, supplies a criterion of absolute identity. Let us say, for

short, on the suggestion we are discussing, this fragment of T is committed to the existence of *absolute surmen*. If so, then T itself is likewise committed, since a theory picks up the ontological commitments of each subtheory it contains. But the existence of absolute surmen, I shall argue, is an absurd supposition. This and an infinity of like absurdities follow from the construal of quantifiers in each language as ranging over entities for which the I-predicable of the language gives a criterion of absolute identity; therefore we cannot construe quantifiers according to this principle.

I am not arguing that there is any absurdity in the assertion "There are surmen." It is easy to check that by my definition there are surmen iff there are men each of whom has just one surname. So there is no absurdity about a subtheory ontologically committed to the existence of surmen; the main theory can pick up this commitment without coming to shipwreck. A subtheory that lacked the resources of vocabulary to distinguish x and y when x and y were the same surman might nevertheless have quite a rich vocabulary; it could contain any predicable that holds good in common for two men, regardless of any differences that do not come out when we only know the surnames of x and y : predicables like "has a heart," "has a liver," and "has the surname Jones." If, however, we read this theory as committed to the existence of absolute surmen—or creatures for whom "is the same surman as" expressed absolute identity—then what sort of creatures would these be? Would they be androids—creatures resembling men in many ways, for example, in having hearts and livers, but differing from men in their criterion of identity? We can in fact rule this out in short order; whatever is a surman is by definition a man. Then suppose, to the contrary, that absolute surmen are in fact men. Then, since, as we saw, the count of surmen comes out smaller than the count of men, absolute surmen will be just some among men. There will, for example, be just one surman with the surname "Jones"; but if this is an absolute surman, and he is a certain man, then *which* of the Jones boys is he? Surely we have here run into absurdity, just as we did when we tried out the suggestion that absolute surmen are nonhuman androids.

Let me re-emphasize that here I am not throwing any doubt on my previous claim that the equivalence relation *is the same surman as* had been properly and coherently explained. What I have just reduced to absurdity is the notion of absolute surmen, that is, beings for whom the holding of this relation constitutes absolute identity. Therewith, I claim, I have also reduced to absurdity the proposal for construing the quantifiers of any given language L so that the I-predicable of L gives a criterion for the *absolute* identity of the

objects quantified over L. Let us thus contentedly revert to the view that what the holding true of the I-predicable in a language L guarantees is always and only: indiscernibility relative to the predicables of L. If L has a sub-language L', the I-predicable for L' may not be an I-predicable for L, because L may have predicables to discriminate things that are indiscernible in L'. Plainly there is no difficulty about this.

This view chimes in very well with the way Quine treats identity in his *Philosophy of Logic*. Quine proposes that the sign of identity in first-order logic be treated not as a logical constant but as merely schematic like the schematic letters P , G , and so on. In any concrete interpretation, "=" will be read as the I-predicable of the language in question; and given an extensional language, with a finite vocabulary of undefined predicables, we can actually define "=" for this language by constructing an I-predicable in this vocabulary. This dodge of Quine's painlessly dominates the boundary between first-order logic and identity theory. Further, we eliminate the anomalous feature of "=" as compared with other logical constants: namely, that it looks as though "=" enabled us to write down, not just valid schemata, but actual true sentences containing only logical vocabulary like "For all x , $x = x$ " and "For all x and y , if $x = y$ then $y = x$." With Quine's proposal, such formulas would become more schemata like "For all x , Fx or not Fx ."

Finally, then, to how much ontological relativity does this relativized identity theory commit us? We can never so specify what we are quantifying over that we are secure against an expansion of our vocabulary enabling us to discriminate what formerly we could not. (In saying this I am in no way revoking my previous insistence that the relation between a language and a sublanguage be treated as timeless. I am here considering linguistic developments from an increase of knowledge; this is not a change of mind, but a change of subject.) And if we list the things we are quantifying over by their names, one of these names may turn out to be not a proper name but a shared name, of objects that we now can discriminate by previously could not. This suggests, after all, some justification for Leśniewski's idea that proper names and shared names be assigned to the same syntactical category, for we may wish to guarantee that the syntax, as opposed to the semantics, of words in our language need *not* be revised in view of new discriminatory powers. (Readers of *Reference and Generality* may remember that I favored this aspect of Leśniewski's views, while I opposed the two-name theory of predication.)

It was therefore not quite right on my part to say that with

relativized identity theory our ontology is firmly under control; but it is as well under control as we could possibly hope. So long as we merely fail to discriminate things that are in truth indiscernible in our language, we are not condemned by this defect in our language and information to say the thing that is not. Thus I do not think there is much of a threat here: only a fangless worm, a paper tiger.

