

## Do We Need Relative Identity?

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In a recent paper in which they attempt to provide a logic for relative identity Routley and Griffin [4] distinguish between those theories which (like the early Wittgenstein's *Tractatus* 5.53-5.534) seek to eliminate identity statements from natural language altogether and those which preserve identity (absolute or relative) for natural language. Wittgenstein would formulate natural language in a notation that would permit no more than one singular term for each item in the domain. Nevertheless, his is not the only way to eliminate identities. There is another, older, way which simply denies a special syntax for natural language identities.

The old way is syllogistic. Although Aristotle first built the syllogistic system, it was Leibniz who first envisaged the possibility of extending and strengthening syllogistic into a universal logic, a logic which takes all natural language sentences as syntactically categorical. Unfortunately, Leibniz enjoyed little success in his attempts to build such a logic. The general inaccessibility of his logical work until recently and the spectacular success of mathematical logic during the past hundred years have contrived to make the old Leibnizian program seem archaic and pointless.

In a recent series of papers Sommers has succeeded in recalling, revitalizing, and, to a large extent, completing the program Leibniz had worked at for so long (see [5]-[13]). On Sommers' theory any assertoric sentence can be rephrased logically as a subject and a predicate. Every assertoric sentence is logically categorical. A subject is a quantified term and a predicate is a qualified term. Terms per se, unquantified and unqualified, are logically homogeneous, and may be negated or unnegated, and may be simple or complex. Most importantly, terms may be either singular or general. In other words, in the new syllogistic singular terms are logically on all fours with general terms. They are fit for the same logical roles usually reserved for general terms. This means that they can be quantified or qualified and so occur as either subject-terms or predicate-terms.

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Following a suggestion first made by Leibniz [3], Sommers allows that the quantity of quantified singulars is arbitrary, makes no logical difference. For example, 'every Socrates' and 'some Socrates' have the same reference (viz., Socrates), so that in natural language we ignore the quantifier and simply use 'Socrates'. 'Socrates is wise' is, logically, a particular/universal affirmation. It can be taken as having the same logical form as either 'Some philosopher is wise' or 'Every philosopher is wise'.

A natural language identity such as 'Tully is Cicero' has both a singular subject-term and a singular predicate-term. Nonetheless, on Sommers' theory it has the same logical form as 'Tully is Roman'. Singular terms can be affirmed or denied (i.e., predicated) just as general terms can. Thus 'Tully is Cicero' simply affirms 'Cicero' of '(some/every) Tully'. Now natural language sentences like 'Tully is Cicero' are absolute identities. The predicate-term is singular. Unlike the early Wittgenstein's method of eliminating identity by placing unnatural restrictions on singulars, Sommers eliminates (absolute) identities in a straightforward natural way: they are predications of singular terms.<sup>1</sup> But what of relative identities of the form '*a* is the same  $\phi$  as *b*'? In the remainder of this note I want briefly to suggest how such sentences can be accommodated by Sommers' logic of complete categorialization.

Some logicians take either all absolute identities to be elliptical for relative identities (e.g., Geach) or only some to be so elliptical (e.g., Griffin). Thus sentences like '*a* is *b*' are first expanded as '*a* is the same as *b*', and then as '*a* is the same  $\phi$  as *b*'. But let us expand a bit further. Sentences like '*a* is the same  $\phi$  as *b*' are surely elliptical for '*a* is the same  $\phi$  which *b* is'. Then: '*a* is some  $\phi$  and *b* is the same  $\phi$ . Or: 'Some  $\phi$  is *a* and it is *b*'. This last transformation parallels the one from 'Some man is from Québec and leads Canada' to 'Some man who is from Québec leads Canada'. Thus, for example, 'Tully is the same Roman as Cicero' can be easily taken as 'Some Roman who is Tully is Cicero'. Here the subject is a particularly quantified complex term and the predicate-term is singular and is affirmed of the subject.<sup>2</sup> Generally, then, relative identities of the form '*a* is the same  $\phi$  as *b*' can be rephrased as 'Some  $\phi$  which is *a* is *b*', a categorial form. Moreover, when taken as categorial they remain reflexive, symmetrical, and transitive. Thus: a man who is Ali is Ali; if a man who is Ali is Clay, then a man who is Clay is Ali; and if a man who is Ali is Clay and a man who is Clay is The Greatest, then a man who is Ali is The Greatest.

## NOTES

1. Griffin, in [2], raised doubts about this part of Sommers' program. I have answered him in [1].
2. For those familiar with Sommers' symbolic calculus of terms I offer the following model formulas:

- |                          |             |
|--------------------------|-------------|
| (i) Some Roman is wise   | $+ R + W$   |
| (ii) Some Roman is Tully | $+ R + t$   |
| (iii) Tully is Roman     | $\pm t + R$ |

- (iv) Tully is Cicero  $\pm t + c$   
 (v) Tully is the same Roman  $+ (R + t) + c$   
 as Cicero

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