

The Caesar problem—towards a piecemeal solution

James Studd (Oxford)

Philosophy of Mathematics Seminar
6th June 2016

The Caesar problem is a long standing problem facing neologists and others who wish to account for portions of mathematics via abstraction principles. On the abstractionist account, the truth-conditions for abstract identity statements, such as ‘the number of F s = the number of G s’ are given via an associated equivalence statement, in this case: ‘the F s are in one-one correspondence with the G s’. The Caesar problem calls for us to settle the truth-conditions for identity statements, such as ‘the number of F s = Julius Caesar’ or ‘the number of F s = the set of G s’, which do not take the canonical form dealt with by abstraction principles. Progress on this problem can be made by starting with the second kind of non-canonical identity statement, where terms for different sorts of abstract object flank the identity predicate. The two standard approaches seek to give a one-size-fits-all solution, based either on the sameness of the equivalence relations or on the sameness of the equivalence classes of concepts associated with the abstract terms. But these accounts face significant difficulties. After reviewing some new and old problems for the standard accounts, a novel account with a more piecemeal nature is put forward.