Can mereological sums serve as the semantic values of plurals?

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Inspired by Boolos, Schein (1993), Oliver and Smiley (2001), and Rayo (2002) have put forward a dilemma to show that characterizing the semantics of plural expressions in predicate logic is unsatisfactory.

On the one hand, if we use sets to represent plurals, we run into the contradiction discovered by Russell in naive set theory. Indeed, the sentence *'There are some sets such that a set is one of them just in case it is not a member of itself'* seems comprehensible and true, yet it cannot be represented using sets, for the resulting logical representation would be contradictory.

On the other hand, if we use mereological sums, the semantics turns out to be too weak. Indeed, there exist count nouns *'M'* and *'N'* such that an M is not an N, but the Ms and the Ns have the same sum. The semantics then attributes the same truth-value to all sentences of the form *'The Ms P'* and *'The Ns P'*, whatever the predicate *'P'*. With certain predicates, however, these sentences have, intuitively, opposite truth-values.

In this talk, I want to examine the second horn of the dilemma. Friends of plural logic (McKay 2006, Oliver & Smiley, Rayo, Yi 2005) and second order logic (Schein) have argued that a semantics of plurals that uses mereological sums would be too weak, and they have adduced several arguments and examples in favor of their claim. With McKay, let us call *mereological singularism* the idea that mereological sums can serve as the semantic values of plurals. *How strong are the arguments against this view?*