Contents
A classical approach to nominal semantics assumes that each NP contains a single plural operator PL (corresponding to plural morphology) which performs two semantic operations: PL is responsible for closing off the set of atoms denoted by its complement singular count noun (closure operation; Link 1983); furthermore, PL contributes the plurality inference, plausibly through some mechanism of competition with singular morphology (P-inference operation; Sauerland 2003, Spector 2007 a.o.).

Kratzer (in progress, Ch. 4) develops a different picture. According to her Lexical Cumulativity Hypothesis (LCH), all natural language predicates are already closed off at the lexical level. Thus, PL is relieved from the duty of performing the closure operation. Kratzer provides arguments for the LCH in the event domain. For the nominal domain, she shows that the LCH is not incompatible with morphologically marked singular nouns: “we do not have to worry about nouns. In one way or other, they comply” with the LCH (p. 5). Yet she provides no arguments. This squib provides an argument for the nominal LCH.

Suppose by contradiction that the nominal LCH were false: nouns come out of the lexicon denoting sets of atoms which are closed by the same operator PL which is responsible for the P-inference. By the contradictory assumption that the nominal LCH is false, boy denotes a property of single boys, not their sums. By the standard semantics for collective predicates, the modifier who met in the room denotes a property of sums of boys, not individual boys. The intersection of these two properties is thus empty and the structure (1) is not a viable parse for the phrase the boys who met in the room. The structure (2) is needed instead, which allows PL to close off the denotation of the atomic noun underneath the modifier.

(1) NP PL
| boy Mod

(2) NP PL
| boy Mod

who met in the room

Now replace the modifier in (2) with in the room, as in (3). As PL doesn’t scope over the modifier in (3), the P-inference triggered by PL doesn’t involve the modifier. This structure thus incorrectly predicts the phrase the boys in the room to be licit in a scenario where there are multiple boys but only one of them is in the room. In order to
block this incorrect P-inference and derive the desired one, the structure (3) needs to be ruled out, with (4) counting as the only licit parse.

(3)                              NP                          (4)                   NP
    Mod
    boy PL in the room

in the room

In conclusion, we face a scope paradox: the closure operation and the P-inference operation need to be performed at different scope sites, as in (2) and (4) respectively. Allowing for movement of PL from the embedded position (underneath the modifier) to the wider position (above the modifier) would not solve the paradox: movement would need to be mandatory for the distributive modifier in the room, which would in turn yield a parse uninterpretable for the collective modifier who met in the room. The nominal LCH relieves PL from the duty of performing the closure operation and thus avoids this scope paradox.

References
Kratzer, A. (in progress) The event argument and the semantics of verbs. Ms., University of Massachusetts at Amherst; available online at www.semanticsarchive.net.