

DONKEY PLURALITIES: PLURAL INFORMATION STATES VS. NON-ATOMIC INDIVIDUALS

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The main goal of this paper is to systematically distinguish two notions of plurality involved in natural language anaphora and quantification, namely:

- (i) *plural reference*, i.e. the usual reference to non-atomic individuals, e.g. the non-atomic individual *megan*⊕*gaby* (non-atomic because it is the sum of the two atoms *megan* and *gaby*) that the sentence *Megan and Gaby are deskmates* is about (see Link 1983 and Schwarzschild 1992 among many others);
- (ii) *plural discourse reference* (modeled in terms of dynamic plural information states), i.e. reference to a quantificational dependency between sets of objects (atomic / non-atomic individuals, but also times, eventualities, possible worlds etc.) that is established and subsequently elaborated upon in discourse, e.g. the dependency between gifts and girls introduced in the first conjunct and elaborated upon in the second conjunct of sentence (1) below.

(1) John bought a^u gift for every^{u'} girl in his class and asked their_{u'} deskmates to wrap them_u.

The first conjunct in (1) introduces a quantificational dependency between the set of girls in John's class and the set of gifts bought by John: each girl is correlated with the gift(s) that John bought for her. This correlation / dependency is elaborated upon in the second conjunct: for each girl, John asked her deskmate to wrap the corresponding gift(s).

However, morphologically plural anaphora of the kind instantiated in (1) does not provide a clear-cut argument for distinguishing plural reference and plural discourse reference (although much of the previous literature relies on such examples to talk about plural discourse reference). In fact, both notions / either notion could be involved in the interpretation of (1).

I will therefore use sentences with multiple instances of singular donkey anaphora like (2) and (3) below to provide independent semantic motivation for plural discourse reference over and above plural reference. In particular, note that the interpretation of (3) involves introducing a quantificational dependency between girls and gifts and elaborating on it of intuitively the same kind as (1) above.

- (2) Every^u person who buys a^{u'} book on amazon.com and has a^{u''} credit card uses it_{u''} to pay for it_{u'}.
- (3) Every^u boy who bought a^{u'} Christmas gift for a^{u''} girl in his class asked her_{u''} deskmate to wrap it_{u'}.

At the same time, allowing for plural reference, i.e. non-atomic individuals, over and above plural discourse reference (unlike much of the previous literature) enables us to capture the intuitive parallels between singular and plural (donkey) anaphora, e.g. the intuitive parallel between the interpretation of (3) above and (4) below – while deriving the incompatibility between singular donkey anaphora and collective predicates exemplified in (5) below.

- (4) Every^u parent who gives a^{u'} balloon / three^{u'} balloons to two^{u''} boys expects them_{u''} to end up fighting (each other) for it_{u'} / them_{u'}.
(based on an example due to Maria Bittner, p.c.)
- (5) #Every^u farmer who owns a^{u'} donkey gathers it_{u'} around the fire at night.
(based on an example in Kanazawa 2001)

REFERENCES: [1] Kanazawa, M.: 2001. Singular Donkey Pronouns are Semantically Singular, *Linguistics and Philosophy* 24, 383–403. [2] Link, G.: 1983. The Logical Analysis of Plurals and Mass Terms: A Lattice-Theoretical Approach, in R. Bäuerle, C. Schwarze and A. von Stechow (eds.), *Meaning, Use and Interpretation of Language*, Berlin: Walter de Gruyter, 302–323. [3] Schwarzschild, R.: 1992. Types of Plural Individuals, *Linguistics and Philosophy* 15, 641–675.