

One reading to rule them all: Basic reading of plural predicates

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Sentences like (1) are assumed to be ambiguous between collective and distributive readings, though there is no consensus as to whether these are the only readings available, or the ambiguity extends further to include more complicated readings (Lasersohn, 2013). For example, Landman (2000) argues for nine readings, five the depend on the placement of a scope mechanism, and four that are scopeless. Gillon (1990b); Schwarzschild (1996) argue that collective and distributive readings are basic, but also that intermediate readings can be made available with context (intermediate readings being those associated with covers—i.e. sets of subsets of a plurality, whose union is equivalent to the plurality itself). This talk discusses a truth-value judgment task designed to test whether intermediate cover readings of plural predicates (i) can be made available or indexed in context as argued by Gillon Gillon (1990a) and Schwarzschild Schwarzschild (1996), or (ii) are never available as argued by Lasersohn Lasersohn (1989), Lasersohn (2013). The results indicate that previous analyses cannot be upheld: cover readings, collective and distributive are not part of the basic interpretation of the sentences in question. To account for these results, I argue for an analysis in which the basic reading of plural predicates is a Landman Landman (2000) inspired double cover reading that has been modified with a Schwarzschild Schwarzschild (1996) style approach to indexing minimal cover readings.

(1) The children wrote songs.

Background

Gillon (1987) argues that plural nouns are ambiguous in respect to their truth conditions, which are the minimal covers of the plural noun phrase. (Gillon (1987) defines a minimal cover as a set that (i) is a subset of the power-set of a set being covered, (ii) has an upward closure equivalent to the set being covered, and (iii) contains no set that is a subset of the union of the others.) Lasersohn (1989) argues that a covers based approach requires the grammar to either generate implausibly large numbers of readings or to otherwise restrict the number of readings, and that either is unlikely, and that a more sound approach is one in which the source of the ambiguity is verbs that have only collective and distributive interpretations. Gillon (1990b) nevertheless insists that context can make cover readings available, while agreeing that ambiguity between distributive and collective readings are the caused by the verb. Schwarzschild (1996) doubles down on the importance of context, arguing for an operation on verbs that indexes covers that are salient in discourse. Landman (2000) takes a different approach, arguing for four scopeless readings (double collective, collective-distributive, distributive-collective, and double-distributive—i.e. cumulative) if plural noun phrases fill the roles of the verb, and five other readings are available depending on how a particular scope mechanism is invoked. For (Landman, 2000), the additional readings from

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covers require contextual weakening of the cumulative interpretation. Despite all of these proposals, Lasersohn (2013) insists certain covers are sometimes never available, there fails to be consensus about the number of readings a plural predicate has.

Empirical Approach

A truth-value judgment task was designed to test which readings are part of the basic interpretation of a plural predicate. 32 native speakers of English were given context/follow-up pairs, like (2-a) and (2-b) respectively, and were asked assume (2-a) is true then consider whether (2-b) could be true or must be false. (2) exemplifies one of three test conditions. In (2), the distributive interpretation is negated, meaning that if participants judge (2-b) to be false, then the distributive reading cannot be part of the basic interpretation of (2-a), while a true judgment would indicate that the reading is available. The two other test conditions tested for the collective reading and for a minimal cover reading respectively. The results show that participants judged all follow-up sentences to be necessarily false a majority of the time, which is taken to indicate that neither collective, distributive, nor minimal cover readings are part of the basic interpretation of plural predicates.

- (2) a. Alex, Billie, and Charlie went to the music studio. The musicians wrote songs.
 b. Alex and Billie didn't write songs individually.

Analysis

The empirical study indicates that the basic interpretation of a plural predicate is not actually ambiguous in respect to multiple readings, rather that it only has a single, weak reading. I therefore adopt the weakened double-distributive interpretation (i.e. the double-cover) interpretation from Landman (2000) as the basic interpretation of a plural predicate, e.g. 3. In this neo-davidsonian approach, the agent and theme are both cover roles as defined in 4, meaning they distribute to groups (which may contain single individuals) rather than strictly to individuals. The reading indicates (i) that there is a sum of writing events, (ii) a sum of groups of musicians as a plural agent, (iii) there is a sum of groups of songs as a plural theme. Within this analysis, ambiguity is relegated from a lexical to a pragmatic issue: if more than one reading is indexed in a given context, it is because more than one is salient. It must, therefore, be investigated what makes particular readings available in a given context.

$$(3) \quad \llbracket \textit{The musicians wrote songs} \rrbracket = \begin{cases} \exists e \in \textit{*WRITE} : \\ a \sqcup b \sqcup c = \sigma(\textit{*MUSICIAN}) \wedge \\ C_i \textit{Ag}(e) = \uparrow(a \sqcup b \sqcup c) \wedge \\ \exists y \in \textit{*SONG} \wedge C_i \textit{Th}(e) = \uparrow(y) \end{cases}$$

Let R be a thematic role

$C_i R$, the cover role based on R,

- (4) is the partial function from D_e to D_d defined by:

$$C_i R(e) = a \text{ iff } a \in \textit{ATOM} \wedge \sqcup(\{\downarrow(d) \in \textit{SUM} : d \in \textit{AT}(\textit{*R}(e))\}) = \downarrow(a)$$

undefined otherwise

(Landman 2000, p. 210)

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