Focus and Distributivity

Enormous amount of data in various typologically unrelated languages shows that the distributive mode of predication tends to be specifically marked in languages (Link, 1998). However, according to Mainland Mandarin (MM) Speakers, when plurals are under focus, the distributive reading may be derived by default (1. a-b). It shows contrasts with normal MM sentences in which the distributive reading is not available unless a distributive marker dou ‘all’ or ge ‘each’ is inserted (2. a-b).

The system to derive distributivity in (1, a-b) is different than that introduced by each in two ways: first, it is compatible with collective predicates like ‘form a line’ (3. a); second, a collective reading is available in some context, for example, when the plural is implied to be a group (3. b). I propose this distributivity deriving system (1, a-b) is discourse-oriented and it shows linguistic effects of economic structuring sets of focus-introduced alternatives (Rooth, 1985, 1998). The proposal can be best specified by an example: for (1. a), suppose the domain of individuals includes Zhangsan, Lisi, John, Mary, and Linda, then for its distributive reading, the alternative propositions are the following in Rooth’s alternative semantics:

\[
\left[\text{Zhangsan and Lisi} \leftarrow \text{bought gifts}\right]^f = \{\text{Zhangsan and Lisi bought gifts, John bought gifts, Mary bought gifts, Linda bought gifts}\}
\]

If the collective reading was also available, according to our knowledge of the domain, the alternative propositions would be the following:

\[
\left[\text{Zhangsan and Lisi} \leftarrow \text{bought gifts}\right]^f = \{\text{Zhangsan and Lisi bought gifts, John bought gifts, Mary bought gifts, Linda bought gifts}\}
\]

\[
\{\text{Zhangsan and Lisi bought gifts, John bought gifts, Mary bought gifts, Linda bought gifts}\}
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\{\text{Zhangsan and Lisi bought gifts, John bought gifts, Mary bought gifts, Linda bought gifts}\}
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\{\text{Zhangsan and Lisi bought gifts, John and Mary bought gifts, Linda bought gifts}\}
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\{\text{Zhangsan and Lisi bought gifts, John and Linda bought gifts, Mary bought gifts}\}
\]

\[
\{\text{Zhangsan and Lisi bought gifts, Mary and Linda bought gifts, John bought gifts}\}
\]

\[
\{\text{Zhangsan and Lisi bought gifts, John, Mary, and Linda bought gifts}\}
\]

While the distributive reading involves no grouping of alternatives, the collective reading has a range of possibilities to structure groups of alternatives. Without any discourse clues that who may constitute a group, a distributive reading is derived by default for economic reasons in structuring proper units of focus-introduced alternatives.

Not all plurals under all foci in MM derive distributivity. Cleft constructions (4) and plurals suffixed with men (5) are two exceptions. However, they both encode discourse information about grouping. Cleft construction may imply a contrastive set in discourse and the collective reading is available because it is exempt from structuring alternative groups. Men is a collective marker (more precisely, group marker) (Iljic 1994, Cheng 1999). Speakers resort to men when they have grounds to view several persons as a group. Therefore the unit of alternatives under focus is group known in discourse instead of a singular person. Thus only the distributive reading is available in (5).

This proposal demonstrates that distributivity, which is believed to be specified by syntactic possibilities (markers like je in German, reduplication in Georgian (Gil 1988) and Pashto (Lorimer 1915), etc), can also be realized to simplify semantic parsing. Moreover, this phenomenon in MM may relate to its lack of strategies to group individuals by phonetic stress. In some other languages, for example, in Dutch, when a stress is put on ‘Lisi’ in (1.a), it implies Zhangsan and Lisi forms a group and the sentence gets a collective readings. However, in Mainland Mandarin, there is not such a pattern, which may explain its interaction between focus and distributivity.
1) a. zhiyou Zhangsan he Lisi mai-le liwu.
   *only Zhangsan and Lisi buy-ASP gift*
   “Only Zhangsan and Lisi bought gifts.” ---distributive
b. lian Zhangsan he Lisi ye mai-le liwu.
   *even Zhangsan and Lisi also buy-ASP gift*
   “Even Zhangsan and Lisi bought gifts.” ---distributive

2) a. Zhangsan he Lisi mai-le liwu.
   *Zhangsan and Lisi buy-ASP gift*
   “Zhangsan and Lisi bought gifts.” ---collective/ *distributive
b. Zhangsan he Lisi dou/ge mai-le liwu.
   *Zhangsan and Lisi all/each buy-ASP gift*
   “Zhangsan and Lisi both/each bought gifts.” ---distributive/ *collective

3) a. zhiyou zhe sanshi-ge-ren paicheng-le yi-dui.
   *only this thirty-CL-people form-ASP a line*
   “Only these thirty people formed a line.” ---collective
b. zai wo renshi de fuqi zhong, zhiyou Zhangsan he Lisi mai-le liwu.
   *at I know of couple among, only Zhangsan and Lisi buy-ASP gift*
   “Among the couples I know, only Zhangsan and Lisi bought gifts.” ---collective

4) shi Zhangsan he Lisi mai-le liwu.¹
   *be Zhangsan and Lisi buy-ASP gift*
   “It is Zhangsan and Lisi that bought gifts.” ---collective/ distributive

5) a. zhiyou tamen/ xuesheng-men mai-le liwu.
   *only they/ students bought-ASP gift*
   “Only they/ students bought gifts.” ---collective
b. lian tamen/ xuesheng-men ye mai-le liwu.
   *even they/ students also buy-ASP gift*
   “Even they/ students bought gifts.” ---collective

References (selected)

¹ The focus construction shi… is different from shi…de, and …de, which requires its object specific. If the object is specific, it follows that distributive reading will be unavailable because the distributive share is not satisfied.