

**Another problem for alternative-based theories of plurality inferences:
The case of reduplicated plural nouns in Japanese**

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Bare plurals like *books* trigger plurality inferences in U(pward)E(ntailing) contexts, (1a), but not in D(ownward)E(ntailing) contexts, (1b). Furthermore in non-monotonic contexts, the plurality inferences are observed in UE part of the meaning, but not in the DE part of the meaning, (1c) (Spector 2007).

- (1) a. John read books.
b. John didn't read books.
c. Only John read books.

Sauerland (2003), Spector (2007), Zweig (2009) and Ivlieva (2014) develop alternative-based theories of the phantasmagoric behaviour of plurality inferences. Putting the details aside, all of them crucially exploit singular counterparts of plural bare nouns, e.g. *book*.

Magri (2011) and Ivlieva & Sudo (to appear) discuss potential problems for these theories posed by so-called 'object mass nouns' (e.g. *change*) and 'mass plurals' (e.g. *clothes*), respectively. The gist of their observations is that these nouns give rise to plurality inferences, despite the fact that they seem to lack singular counterparts. For example, in UE contexts, (2a), *change* implies that there is more than one coin, which disappears in DE context, (2b). And in non-monotonic contexts, (2c), the plurality inference is only observed in the UE part of the meaning.

- (2) a. John has change.
b. John does not have change.
c. Only John has change.

Here I observe that reduplicated plural nouns in Japanese create the same problem. Generally, nouns in Japanese are number neutral, (3).

- (3) a. ichi-rin-no hana
one-CL-GEN flower
'one flower'
b. takusan-no hana
many-ACC flower
'many flowers'

However, there are some exceptional plural nouns, which are formed by reduplicating a simple noun, (4). The relevant morphological process is unproductive, and (4) covers most of the existing reduplicated nouns.

- (4) a. hito-bito person-person
b. yama-yama mountain-mountain

- c. kuni-guni country-country
- d. mura-mura village-village
- e. hoshi-boshi star-star
- f. kami-gami god-god
- g. hi-bi day-day
- h. hana-bana flower-flower

These nouns are plural and incompatible with singular reference, e.g. *hana-bana* can be substituted in (3b), but not in (3a). They are also not ‘associative plurals’, unlike plural nouns of the form *N-tachi* (see Nakanishi & Tomioka 2004), and can only refer to homogeneous groups, each member of which is describable by the noun.

Crucially, the plurality inferences of the reduplicated plural nouns behave exactly like those of English plural nouns. Specifically, (5a) has a plurality inference that more than one seasonal flower is involved, while (5b) does not. Moreover, (5c) has a plurality inference only in the UE part of the meaning.

- (5) a. Taro-wa kisetsu-no hana-bana-o mottekita.
Taro-TOP season-GEN flower-PL-ACC brought
‘Taro brought seasonal flowers.’
- b. Taro-wa kisetsu-no hana-bana-o motteko-nakatta.
Taro-TOP season-GEN flower-PL-ACC brought-NEG
‘Taro didn’t bring seasonal flowers.’
- c. Taro-dake-ga kisetsu-no hana-bana-o mottekita.
Taro-only-NOM season-GEN flower-PL-ACC brought
‘Only Taro brought seasonal flowers.’

This observation poses a challenge to the theories of plurality inferences that rely on singular nouns, as Japanese simply lacks singular nouns. One could assume that the crucial alternative includes numeral *one*, e.g. (3a), but such a move is theoretically costly, as what counts as an alternative needs be structurally constrained (Fox & Katzir 2011, Katzir 2007).

(496 words)

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