

1. The Issue Chierchia (1998) distinguishes languages with and without a mass-count distinction. He argues that all nouns are mass in languages without a mass-count distinction such as Japanese and Chinese (CLASSIFIER LANGUAGES), and derives two facts from this. First, classifier languages lack obligatory plural marking and second, they require classifiers for counting. However, it has been argued that the existence of (optional) plural marking in classifier languages challenges Chierchia's analysis (e.g., Chung 2000). Based on an analysis of the Japanese plural marker *-tati*, we argue that optional plural marking is semantically and syntactically distinct from plural marking in non-classifier languages, and thus that it does not constitute a problem for Chierchia's analysis.

2. Plural Marking in Japanese Japanese lacks an obligatory singular-plural distinction on nouns, and as a result bare common nouns can be interpreted with either number. However, some animate (and more specifically human) nouns may be optionally marked as plural by means of the suffix *-tati*, as in (1a), and for this reason *-tati* is commonly described as an optional plural marker (Martin 1975). An oft-overlooked fact of this so-called optional plural marker is that it is obligatory on plural personal pronouns, as in (1b).

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| (1) | a. | <i>gakusei</i> | <i>gakusei-tati</i> | b. | <i>watasi</i> | <i>watasi-tati</i> |
| | | 'student/students' | 'students' | | 'I/*we' | 'we' |

The question that must be addressed then is why *-tati* is obligatory with pronouns, and only optional with human nouns.

3. Japanese Plurals are Associative In addition to the contexts illustrated in (1), *-tati* can also appear with proper names. This use of plural is often referred to as an ASSOCIATIVE PLURAL, and is known to be semantically distinct from an ADDITIVE PLURAL like English *-s* (Corbett 2000, Moravcsik 2003). Informally, an associative plural is comprised of a focal individual and his or her associates. For instance, *Mika-tati* refers to a focal individual named Mika and her associates. Nakanishi and Tomioka (2004) argue that *-tati* is an associative rather than an additive plural, even when it combines with a common noun. Their claim is based on the observation that the denotation of human common nouns with *-tati* may include "exceptional associates". For example, *gakusei-tati* 'student-TATI' may include non-students as well as students. However, their analysis cannot account for the fact that on its most salient reading, the denotation of *gakusei-tati* includes only students. In this sense, *-tati* is on a par with additive plurals like English *-s*. Furthermore, Nakanishi and Tomioka's analysis offers no explanation as to why *-tati* is obligatory with pronouns.

4. The Semantics of Associative Plurals We agree with Nakanishi and Tomioka that *-tati* is always an associative plural, but develop an alternative semantic analysis which (i) yields an additive as well as an associative reading, and (ii) accounts for the obligatoriness of plural marking on pronouns. Specifically, we propose that *-tati* has the denotation given in (2).

- (2) $[[\text{-tati}]] = \lambda x: x \text{ is human. } \lambda y. \exists z[x \leq y \wedge z \leq y \wedge x \neq z \wedge z \text{ has some property in common with } x]$

(2) states that *-tati* combines with a focal human individual (of type *e*), and maps it onto sets of pluralities, each of which includes the focal individual and his/her associate(s). The associate(s) can be any singular or plural individual that shares some property with the focal individual. For instance, when *-tati* is combined with *Mika*, it yields sets of pluralities each of which contains *Mika* and people who have some property in common with *Mika* (e.g., her family, playmates, etc.). The claim that *-tati* is an associative plural provides a straightforward account of the fact that it is also used for 1st and 2nd person plural pronouns. It has been independently observed that universally 1st and 2nd person plural pronouns denote associations of speaker/hearer and others (see, for example, Noyer 1992, Corbett 2000). On the current analysis, *-tati* in *watasi-tati* 'I-TATI = we' yields sets of pluralities each of which contains the speaker and people who share some property with the speaker (e.g., his family, classmates, etc.).

The current analysis can explain why an additive reading is salient when *-tati* combines with a common noun like *gakusei* 'student'. According to (2), *gakusei-tati* 'student-TATI' denotes sets of

pluralities, each of which contains a student/students and people who share some property with this focal individual. We suggest that the most salient and apparent shared property is the property denoted by the common noun itself (e.g., student status in the case of *gakusei*). As a result, the associates end up having the property denoted by the noun that describes the focal individual, and this yields the effect of an additive reading. This analysis extends to *-tati* with 3rd person pronouns. Following Kratzer (to appear), we assume that 3rd person pronouns are definite descriptions consisting of a gender feature and definiteness. As with common nouns, the most salient and apparent shared property between a 3rd person pronoun and his/her associates is the content of the pronoun itself, in this case its grammatical gender feature. For instance, *kanozyo-tati* ‘she-TATI = they (fem.)’ denotes sets of pluralities each of which contains *kanozyo* ‘she’ and people who share some property with her, namely, the feminine feature. Again, the result yields the effect of an additive reading.

We further show that the proposed analysis can account for why *-tati* is obligatory with pronouns and optional with human common nouns. This follows from the observation that an associative reading of a proper name can only be conveyed when an associative plural is overtly present. For instance, *Mika-tati*, but not *Mika* by itself, can be used to mean ‘Mika and her associates’. The same is true for pronouns because, like names, pronouns are referential (in the case of 1st and 2nd person pronouns) or definite descriptions (in the case of 3rd person pronouns) (Kratzer to appear). Assuming that Japanese simplex pronouns like *watasi* ‘I’ and *kanozyo* ‘she’ denote a singular individual, their plurality can only be expressed by the addition of *-tati*. In contrast, human common nouns are neither referential nor definite, and consequently they permit both singular and plural interpretations in Japanese. That is, a plural interpretation is obtainable without the presence of *-tati*, which in turn accounts for why *-tati* is only optional with human nouns.

5. Towards a syntactic analysis of associative plurals Following Borer (2005), we assume that additive plural markers and classifiers belong to the same functional syntactic category, and hence that they are in a complementary distribution. However, we suggest that the associative plural belongs to a different (lexical) category based on its optionality and lexically restricted distribution. This correctly predicts that it should co-occur with classifiers in a language like Japanese (3a), and with an additive plural marker in a non-classifier language like Central Alaskan Yup’ik (3b) (Corbett 2000: 108-109).

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| (3) | a. go-nin-no gakusei-tati five-CL-GEN student-TATI ‘five students’ | b. Cuna-nku-t Chuna-ASSOC.PL-ADD.PL ‘Chuna and his family/friends’ |
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6. Typological Consequences All languages have the means to express plurality. Classifier languages like Japanese are restricted to associative plurals. In other words, if they have a separate plural marker it can only be an associative plural. According to Chierchia (1998), this follows from the fact that all nouns in these languages are mass, and hence cannot combine with an additive plural marker. As for non-classifier languages, they are not similarly restricted. Such languages may or may not have an associative plural marker in addition to an additive plural. In non-classifier languages where the additive plural is an obligatory inflectional marker, it will appear as the default plural.

References

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