

Japanese plural marker *tachi*

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1. Introduction

This paper discusses the Japanese plural marker *-tachi* and, adopting the ideas of Kwak (1995) and Landman (1989, 2000), argues that it yields a group interpretation in which the group formation is dependent on a certain event or situation.

In Japanese, bare nouns can be used as singular or plural, as illustrated in (1):

- (1) Otonoko-ga asonde-iru.
 boy-NOM play-PROG
 “A boy is/boys are playing.”

However, it has been discussed by Kurafuji (2004) and Nakanishi and Tomioka (2002) that Japanese also has a kind of plural marker such as *tachi*, as illustrated in (2):

- (2) Otokonoko-tachi-ga asonde-iru.
 boy-TACHI-NOM play-PROG

In (2), *otokonoko* “boy” is unambiguously interpreted as plural because of the morpheme *-tachi*.

Nakanishi and Tomioka (2002) discuss a variety of properties of the *-tachi* plural NP and argue that *-tachi* is not simply an optional plural marker. To be specific, they argue that the plural morpheme *-tachi* yields an associative plural NP when it attaches to a common noun (CN). The associative plural NP is defined as a plural NP which can contain some individuals which do not possess the property denoted by the CN, as long as the majority of the plural entity has the property.

Nakanishi and Tomioka’s (2002) analysis would be on the right track in that it can capture the property of the “associative plural”. However, it is not sufficient to capture another important property of the *-tachi* plural. In this paper, I propose a modification of Nakanishi and Tomioka’s (2002) analysis. To be specific, I propose that the morpheme *-tachi* also has a property to yield a group interpretation when it attaches to a CN. Furthermore, following Kwak (1997), I argue that the group formation is dependent on a certain event or situation.

2. Nakanishi and Tomioka (2002)

Nakanishi and Tomioka (2002) argue that *-tachi* plural NPs in Japanese are associative plurals. According to them, *-tachi* is different from the ordinary plural marker. When *-tachi* attaches to a CN, the property P denoted by the CN can hold of the majority of the plural entity, but does not have to hold of all the members. To be specific, Nakanishi and Tomioka

propose the following denotation for the meaning of *-tachi* :

$$(3) \quad [tachi] \in D_{\langle\langle e,t \rangle, \langle e,t \rangle\rangle} = \lambda P_{\langle e,t \rangle} . \lambda Y_e . |Y| \geq 2 \ \& \ P \text{ represents } Y$$

The semantic representation in (3) means that a property P represents a plural entity Y if the majority of the plural entity has the property. Furthermore, “represent” in (3) is defined as (4) :

(4) For any $Q \in D_{\langle e,t \rangle}$ and plural entity X, Q represents X iff the number of non-Q in X is negligible.

Nakanishi and Tomioka’s analysis correctly predicts that the sentence in (5) is grammatical :

(5) Daigakusei-tachi-ga kooen-de yakyu-o shi-te i-ta.
 university student-TACHI-NOM park-in baseball-ACC do-be -ing-PST
 “The university students were playing baseball in the park.”

(6) Futari-no shoogakusei-mo mazat-te i-ta.
 two-GEN school-child-also join-be -ing -PST
 “Two schoolchildren were also playing it with them.”

The sentence in (6) can follow the first sentence in (5) and we do not have any contradiction in meaning between (5) and (6).

3. Problem

As discussed in section 2, according to Nakanishi and Tomioka (2002), the plural morpheme *-tachi* yields a special kind of plural, namely, associative plural, which can include individuals which do not have the properties denoted by the CN. However, it still faces a problem with a distributive reading of the *-tachi* plural. Under Nakanishi and Tomioka’s analysis, the morpheme *-tachi* is still a plural marker which would yield distributive and collective readings. Their analysis predicts that *CN + tachi* should have a distributive reading. However, this is not borne out, as shown in (7) and (8). For example, in (7), the NP *3-nin-no kodomo* “three children” has a distributive interpretation. If *-tachi* is a simple plural marker, *CN + tachi* also allows a distributive reading like the bare NP in Japanese. However, in fact, it cannot have a distributive reading, as shown in (8).¹

¹ With regard to the example in (8), if the number 3 is replaced by a large and non-exact number such as *hyaku-nin ijyo* “more than one hundred”, the sentence sounds much better than the example in (8), as discussed in Nakanishi and Tomioka (2002) :

(i) ?Kono-gakko-zentai-de hyaku-nin ijyo -no kodomo-tachi-ga kyoshitsu-kara
 this-school-whole-at one hundred-CL more than-GEN child-TACHI-NOM classroom-from

- (7) Kono-gakko-zentai-de 3-nin-no kodomo-ga kyoshitsu-kara nigedashi-ta.
 this-school-whole-at 3-CL-GEN child-NOM classroom-from run away-PST
 “Three children in total ran away from classrooms at this school.”
 (ok under the interpretation in which three children ran away on different occasions.)

- (8) Kono-gakko-zentai-de 3-nin-no kodomo-*tachi*-ga kyoshitsu-kara
 this-school-whole-at 3-CL-GEN child-TACHI-NOM classroom-from

nigedashi-ta.

run away-PST

“Three children in total ran away from classrooms at this school.”

(*under the interpretation in which three children ran away on different occasions.)

Concerning the distributive reading of a plural NP, I assume that a sum of individuals is in the distributive extension of the property denoted by the verb if all individuals, i.e., atoms, are in the extension of the verb property (Link 1983 and others). In other words, if the property denoted by the verb holds of each atom of the sum, the plural NP has a distributive reading.

Under the above assumption, let's consider the denotation of *-tachi*, proposed by Nakanishi and Tomioka (2002). According to Nakanishi and Tomioka, the property P denoted by the CN marked by *-tachi* holds of the majority of the plural entity, but does not have to hold of all the members. However, the set of individuals which have a property denoted by the CN is a subset of the set of individuals denoted by *CN + tachi*, according to the definition proposed by Nakanishi and Tomioka. Thus, if the property denoted by the verb holds of all the individuals denoted by *CN + tachi*, the property also holds of all the members of its subset, namely, the individuals denoted by the CN. Given that, the analysis of *-tachi* proposed by Nakanishi and Tomioka would predict that *CN + tachi* also allows a distributive reading. However, in fact, this prediction is not borne out, as illustrated in (7) and (8).

For example, in (7), the NP *3-nin-no kodomo* “three children” has a distributive interpretation. Under this reading, three children ran away on different occasions. If *-tachi* is a simple plural marker, *CN + tachi* also allows a distributive reading like the bare NP in Japanese. However, in fact, it cannot have a distributive reading, as shown in (8). This example has the only interpretation under which a group of three children ran away on only one occasion.

nigedashi-ta.

run away-PST

“More than one hundred children in total ran away from classrooms at this school.”

(*under the interpretation in which three children ran away on different occasions.)

However, the question still remains as to why the example in (8) is unacceptable, in contrast with the above example in (i). Furthermore, the bare-plural *3-nin-no kodomo* “three children” can have a distributive reading even though the number is not large. Further research on this issue is needed.

4. Proposal

In this paper, I will modify Nakanishi and Tomioka's (2002) analysis of *-tachi* plurals. To be specific, following Kwak (1995) and Landman (1989, 2000), I propose that *-tachi* is a group-forming plural marker and that the group is determined based on a certain event (or spatio-temporal location).

4. 1. Kwak (1997)

Kwak (1997) argues that there are two types of groups in the domain of individuals. One type is a well-established group such as *committee*. This type of group is involved in regular events and has an identity independent of a sum of its members. The second group is a temporary group such as *John, Mary, and Kim*. This type of group is identified as a group dependent on a certain event.

In her paper, Kwak (1997) is concerned with this second type of group interpretation and argues that the group formation in this case is defined as a function from event to individual. For example, we can provide the following semantic interpretation in (9) for the group interpretation of *John, Mary, and Kim* :

$$(9) \quad [[\text{John, Mary, and Kim}]] = \lambda e [\uparrow (j+m+k) (e)] \quad \langle s, e \rangle$$

Depending on which event is taken, the denotation of the group may be different, as illustrated in (10) and (11) :

(10) John, Mary and Kim passed the thesis.

(11) John, Mary, and Kim discussed papers submitted to the journal.

In (10), *John, Mary and Kim* is interpreted as a thesis committee, whereas, in (11), it is interpreted as an editorial board.

4. 2. Landman (1989, 2000)

Landman (1989, 2000) also assumes that events are involved in the collective or group interpretation. He accounts for collective interpretations and distributive interpretations based on the notion of singular/plural predicates and a Neo-Davidsonian theory of events (Parsons 1990 and others). Following a Neo-Davidsonian theory of events, Landman (2000) assumes the following semantic denotation for the verb *walk*.

$$(12) \quad \text{walk} \rightarrow \lambda x \{ e \in \text{WALK} : \text{Ag} (e) = x \}$$

He assumes that the predicate WALK in (12) is a singular predicate. Singular predicates are

defined as a predicate which denotes a set of singular individuals only, namely, a set of atoms. For example, BOY is assumed to be a singular predicate and to denote a set of singular individuals which has a property *boy*'. On the other hand, plural predicates, e.g. BOY* adds to the extension of BOY all the plural sums which can be formed from elements of BOY. The same idea also applies to verbal predicates. A singular verbal predicate WALK in (12) denotes a set of singular individuals which has a property *walk*'. Plural predicates WALK * adds to the extension of WALK all the plural sums which can be formed from elements of WALK.

Landman's theory assumes that thematic roles are only defined for atomic events and that thematic roles only take atomic individuals as a value. To be specific, thematic roles are defined as functions from events into individuals, which is of type $\langle e,d \rangle$. Under this assumption of thematic roles, Landman accounts for collective interpretations in the following manner. Landman assumes that collective interpretations are group interpretations. To be specific, he assumes that the collective reading is yielded by an implicit group-forming operator, as illustrated in (13) and (14):

(13) The boys carried the piano upstairs.

(14) The boys, as a group, carried the piano upstairs.

(15) ($\uparrow(\sigma(*BOY))$)

(Landman 2000)

The semantic interpretation of *the boys* in (13) is given in (15). *BOY in (15) is the closure of the singular predicate BOY under sum. \uparrow is assumed to be a group-forming operator, which turns a sum of individuals into a group atom. In the case of the group interpretation, the group atom fills in the position for a thematic role of a semantically singular predicate. This means that, in the group interpretation, one event (or situation) is associated with a group atom through a thematic role. Concerning the distributive reading, the subject plural NP fills a plural agent role of the semantically plural predicate, which is the pluralization of the basic predicate. For example, in example (16), the denotation of the subject *the boys* does not fill the agent role of *sing*, but it fills a plural agent role of *sing*.

(16) The boys sing.

(Landman 2000)

Under this analysis, an event is associated with an atomic individual through an agent role and this relation between an event and an atomic individual is cumulated.

4. 3. Details of my proposal

In this paper, I propose a modification that maintains Nakanishi and Tomioka's (2002) analysis of the *-tachi* plural. To be specific, *-tachi* also has a property of mapping events into group atoms, adapting the idea of Kwak (1997).² Furthermore, following the idea of Landman

² I admit that there is some evidence against obligatory collectivity of *tachi*- plurals, as shown in (i):

(2000), the mapping of one event into a group atom yields a group interpretation.

With regard to the semantic denotation of the plural marker *-tachi*, I incorporate Kwak's analysis of an event-dependent group into Nakanishi and Tomioka's analysis of the *-tachi* plural, as illustrated in (17):

$$(17) \lambda P_1 \lambda P_2 [\exists X [[|X| \geq 2 \wedge *P_1 \text{ represents } X] \wedge P_2 (\uparrow(X) (e))]]$$

With regard to the denotation of (17), roughly speaking, the information of the group formation, namely, $P_1 (\uparrow(X) (e))$ is added to Nakanishi and Tomioka's analysis of *-tachi*. The variables P_1 and P_2 in (17) correspond to the properties denoted by the CN marked by *-tachi* and the matrix predicate, respectively.

As discussed in Kwak (1997), in this semantic representation, an event (or situation) is mapped onto a group atom. However, the analysis given in (17) is crucially different from Kwak's analysis in that the event variable e is a free variable. Under Kwak's analysis, the event variable is bound by a lambda operator and is later bound by an existential quantifier, which also binds the event variable of the matrix predicate. However, under my analysis, the value of this event free variable is determined by the context. I refer to my proposed analysis of the Japanese plural marker *-tachi* as the Event-Dependent Group Analysis.

I assume that an event or situation based on which a group atom is yielded does not have to be the same as the matrix event. On the other hand, Kwak (1997) assumes that the event which is mapped onto each group atom in the group interpretation is associated with an event argument of the matrix predicate on the assumption that predicates have an argument position for events (Davidson 1967). For example, Kwak gives the following semantic interpretation in (19) for the group interpretation of the example in (18):

- (18) Ney-mari-uy so-wa yel-mari-uy toayci-ka nanuiecessta.
 four-CLASS-POSS cow-and ten- CLASS-POSS pig-NOM separated
 "Four cows and ten pigs were separated."

$$(19) \exists e [\text{separate} (\uparrow(c1 + \dots + c4) (e) + \uparrow(p1 + \dots + p10) (e)) (e)]$$

The semantic interpretation given in (19) represents a group interpretation in which a group of four cows and a group of ten pigs were separated from each other.³ These two groups are

- (i) Kodomo-tachi-wa ono-ono sono-hon-o yon-da.
 child-TACHI-TOP each the-book-ACC read-PST
 "The children each read the book."

Kodomo-tachi in (i) is compatible with the distributive adverb *ono-ono* "each". This would show that a *tachi* plural can be interpreted as distributive. On the other hand, as discussed in section 3 and 6, there is also evidence for obligatory collectivity of *tachi*-plurals. It seems that the collectivity of *-tachi* plurals is not strong enough to be incompatible with a distributive adverb. I need further research on each condition of the collectivity and distributivity of *-tachi* plurals.

dependent on the event e . In this semantic representation, this event variable e is also shared with the matrix verbal predicate and all of those event variables are bound by the existential quantifier \exists . Thus, the event mapped onto each group atom is the same as an event of the matrix predicate.

With regard to the event variable for the group-formation, Landman (2000) also takes the same position as Kwak (1997). Under Landman's (2000) theory, as discussed in section 4.2., a group atom fills in the argument position of a thematic role in the group interpretation, as shown in (21):

(20) The boys sing.

(21) $\exists e \{e \in \text{SING} : \text{Ag}(e) = \uparrow(\sigma(*\text{BOY}))\}$

Under Landman's theory, the sentence in (20) would have the semantic interpretation in (21). In this semantic representation, a thematic role such as Agent (Ag) is a two-place predicate which denotes a thematic relation between an individual and an event. Furthermore, the event is the same as the event of *SING*, namely, the matrix verbal predicate. Thus, the event associated with a group atom is the same as the event of the matrix predicate.

Under my proposed analysis, the following example in (22) is given the semantic interpretation in (23):

(22) Shonen-tachi-ga kooen-de sakka-o shi-ta.
 boy-TACHI-NOM park-in soccer-ACC do-PST
 "The boys played soccer in the park."

(23) $\lambda P_1 [\exists X [[|X| \geq 2 \wedge *BOY \text{ represents } X] \wedge P_1 (\uparrow(X)(e_1))]]$

(24) $\exists e_2 \exists X [[|X| \geq 2 \wedge *BOY \text{ represents } X] \wedge [\text{play}'(e_2) \wedge \text{AG}(e_2, \uparrow(X)(e_1)) \wedge \text{TH}(e_2, s) \wedge \text{IN}(e_2, \text{the-park}')]]]$

In the semantic representation in (24), the group formation of the boys is based on the event e_1 , and it does not have to depend on the situation or event e_2 of the matrix predicate *played soccer*.

5. Evidence for the Event-Dependent Group Analysis

Under the Event-Dependent Group Analysis of the Japanese plural marker *-tachi*, as discussed in section 4.3., the value of the free event variable in (17) is determined by the context which the speaker and the hearer share. Furthermore, an event or situation based on which a group atom is yielded does not have to be the same as the matrix event. This means that, if the event based on which the extension of *CN + tachi* is determined precedes the matrix

³ In (19), c denotes an entity which has a property *cow'* and p denotes an entity which has a property *pig'*.

event, then the existence of the group entity denoted by *CN + tachi* should be presupposed in the matrix clause event or situation for the speakers or listeners.

This analysis would correctly account for the so-called “definiteness” of *CN + tachi*. According to Kurafuji (2004) and Kawasaki (1989), when *-tachi* is attached to a common noun (CN), the resulting expression tends to be interpreted as definites, as in (25) and (26):

(25) John-wa gakusei-tachi-ni at-ta.
 TOP student-TACHI-DAT meet-PST
 “John met the students.” (Kurafuji 2004)

(26) John-ga doroboo-tachi-o tsukamae-ru daroo.
 NOM thief-TACHI-ACC catch-PRES maybe
 “Maybe, John will catch the thieves.” (Kurafuji 2004)

In both (25) and (26), *gakusei-tachi* “the students” and *doroboo-tachi* “the thieves” are interpreted as denoting the individuals whom the speaker and the hearer both know. Furthermore, as discussed by Kurafuji (2004) and Kawasaki (1989), the definiteness of a *CN + tachi* is made explicit when it is used in question or negative sentences, as shown in (27) and (28):

(27) Kono-ie-ni kodomo-tachi-wa i-masu-ka?
 this-house-in child-TACHI-TOP exist-PRES-Q
 “Are the children in this house?”

(28) Kono-ie-ni kodomo-tachi-wa i-mase-n.
 this-house-in child-TACHI-TOP exist-PRES-NEG
 “The children are not in this house.”

In the examples in (27) and (28), the existence of *kodomo-tachi* “the children” is presupposed and it is already known by both the speaker and the hearer.

6. CN + tachi as a group entity

This section provides some support for my proposal that *CN + tachi* denotes a group entity. As discussed in section 3, *CN + tachi* does not allow a distributive reading in contrast with the bare NP, as illustrated in (29) and (30):

(29) Kono-gakko-zentai-de 3-nin-no kodomo-ga kyoshitsu-kara nigedashi-ta.
 this-school-whole-at 3-CL-GEN child-NOM classroom-from run away-PST
 “Three children in total ran away from classrooms at this school.”
 (ok under the interpretation in which three children ran away on different occasions.)

- (30) Kono-gakko-zentai-de 3-nin-no kodomo-**tachi**-ga kyoshitsu-kara
 this-school-whole-at 3-CL-GEN child-TACHI-NOM classroom-from

nigedashi-ta.

run away-PST

“Three children in total ran away from classrooms at this school.”

(*under the interpretation in which three children ran away on different occasions.)

In (29), the NP *3-nin-no kodomo* “three children” has a distributive interpretation. Under this reading, three children ran away on different occasions. If *-tachi* is a simple plural marker, *CN + tachi* also allows a distributive reading like the bare NP in Japanese. However, in fact, it cannot have a distributive reading, as shown in (30). This example only means that a group of three children ran away on only one occasion.

The Event-Dependent Group Analysis correctly predicts these phenomena. This analysis assumes that *CN + tachi* denotes a group atom. Therefore, *CN + tachi* has only a group interpretation and cannot have a distributive interpretation.

Further support for the group reading of *CN + tachi* comes from two other facts. First of all, when a floating quantifier modifies a bare NP and a *CN + tachi*, the bare NP allows a distributive reading, whereas the *CN + tachi* does not.

According to Terada (1990), Ishii (1999) and others, when a floating-quantifier modifies an NP, this sentence allows only a distributive reading, as illustrated in (31). On the other hand, if a floating-quantifier modifies a *CN + tachi*, the sentence does not allow a distributive reading, as illustrated in (32):

- (31) Gakusei-ga kino michibata-de san-nin hon-o hirot-ta.
 student-NOM yesterday street-on three-CL book-ACC find-PST
 “Three children captured a cat in the park yesterday.”

- (32) *Gakusei-**tachi**-ga kino michibata-de san-nin hon-o hirot-ta.
 student-TACHI-NOM yesterday street-on three-CL book-ACC find-PST
 “Three children captured a cat in the park yesterday.”

The Event-Dependent Group Analysis correctly predicts this phenomenon. Under this analysis, *CN + tachi* denotes a group atom. Furthermore, following Landman (2000), it is assumed that the distributive reading comes from a plural individual when a plural predicate is predicated of the plural individual. The plural predicate cannot be predicated of an individual or group atom. Therefore, *CN + tachi* cannot have a distributive interpretation in example (32).

Second, when a demonstrative is attached to an NP, it must take a plural form when the NP has a plural interpretation, as shown in (33). On the other hand, regarding *CN + tachi*, the demonstrative takes a singular form, even though it has a plural interpretation, as shown in (34):

(33) **Sono**-hon “that book” **Sorerano** hon “those books”
 that-book those book

(34) **Sono**-kodomo-tachi “that group of children”
 that child-TACHI

This shows that *kodomo-tachi* to which *sono* is attached is an atomic expression.

However, the example in (34) might not be reliable evidence for the Event-Dependent Group Analysis. The morpheme *-tachi* might be attached to the NP *sono-kodomo* “that child” in (34), if we follow Nakanishi and Tomioka’s (2002) analysis. However, there is some evidence to support my analysis of the example in (34), as shown in (35) and (36):

(35) kodomo-tachi-ga tairyooni shissou-shite shimat-ta. Sono-kodomo-tachi-wa
 child-TACHI-NOM a lot disappear-have-PST the-child-TACHI-TOP

doo nat-ta-ka.

what become-PST-Q (From <http://lanxer.hp.infoseek.co.jp/flabja.htm>)

“A lot of children have disappeared. What became of the group of children?”

(36) Watashi-mo kodomo-ga futari imasu-ga, sono-kodomo-tachi-ga
 I-also child-NOM two have-but the-child-TACHI-NOM

shoorai jibun-o sutete deteiku-koto-ga aru-kamoshiremasen.

future self-ACC desert leave-thing- NOM happen-might

(From <http://www1.ocn.ne.jp/~jyosenji/rei3.html>)

“I also have two children, but both of them might desert and leave me.”

In (35), if the demonstrative *sono* “that” were attached to the NP *kodomo* “child”, *sono-kodomo* “that-child” would not have any entity which it can refer to. In the first sentence, we do not have any specific singular individual which the expression *sono-kodomo* “that-child” can refer to. The only NP in the first sentence which an anaphoric expression in the second sentence can refer to is *kodomo-tachi* “children”. This shows that *sono* “that” in (35) is attached to *kodomo-tachi* “children” and this expression refers to *kodomo-tachi* “children” in the first sentence.

The example in (36) also supports my analysis of the example in (34). In the interpretation of the first sentence, “I” have two children. They might desert me in the future. However, in this context, there is no one specific child in the first sentence which *sono-kodomo* “the child” can refer to. This means that *sono* “the” is attached to *kodomo-tachi* “children” and that *sono-kodomo-tachi* “the group of children” refers to the two children whom “I” have. These two examples show that *sono* “that” can be attached to *kodomo-tachi*.

7. *-tachi* plurals vs. English bare plurals

As discussed by Nakanishi and Tomioka (2002), *CN + tachi* behaves differently from English bare plurals. My analysis also accounts for those properties of *CN + tachi*. First, an English bare plural is compatible with a kind-taking predicate, whereas a *CN + tachi* isn't, as shown in (37) and (38). Under the assumption that kind-taking predicates are not a stage level predicate which is related to an event (Kratzer 1995), my analysis correctly predicts the phenomenon in (38):

(37) Female private detectives are rare.

(38) Zyosei-tantei (*-**tachi**) -wa mezurasii.

female-detective (-TACHI) -TOP rare

“Female private detectives are rare.”

(Nakanishi and Tomioka 2002)

In my analysis, *mezurasii* “rare” in (38) is a predicate which is not related to an event or situation. Thus, *CN + tachi* is not compatible with the kind-taking predicate, since *-tachi* must map an event onto a group entity. In contrast, it is assumed that Japanese bare NPs can denote kinds (Chierchia 1998). Thus, they are compatible with kind-taking predicates.

Second, an English bare plural can be the argument of the possession verb *have*, as shown in (39), whereas a *CN + tachi* cannot be the argument of the possession verb *aru/iru* “to have, to exist”, as shown in (40):

(39) Mrs. Inoue has children.

(40) Inoue-san-ni-wa kodomo-ga/ *kodomo-**tachi**-ga i-ru.

Inoue-DAT-TOP child-NOM/child-TACHI-NOM exist

“Mrs. Inoue has a child/children.” (It asserts that Mrs. Inoue is a mother.)

(Nakanishi and Tomioka 2002)

My analysis correctly predicts this phenomenon. As discussed by Kratzer (1995), the possession verb does not denote a transitory property of the possessor. It is considered as an individual predicate to which a certain event is irrelevant. Thus, the *CN + tachi* cannot be used in (40).

8. Conclusion

In this paper, I have proposed that the morpheme *-tachi* yields a group individual when it attaches to a CN. Furthermore, following Kwak (1997), I argue that the group formation is dependent on a certain event or situation. To be specific, *-tachi* denotes a function which maps an event or situation onto a group entity. I have called this analysis the Event-Dependent Group Analysis.

This analysis gives a unified account of the absence of a distributive reading of the *CN +*

tachi and the singular form of a demonstrative attached to the *CN + tachi*, as discussed in section 6. Furthermore, it also accounts for the differences between English bare plurals and *-tachi* plurals in Japanese.

This analysis also has an implication for the analysis of Japanese NPs. It seems that an event or situation affects or sometimes determines the property which holds of an entity denoted by an NP (see Hosoi (2003)). In this sense, events or situations might play a more important role in the interpretation of NPs in Japanese than in other languages such as English.

9. References

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