A Brief Note on Size Prefixes in Japanese

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1 Introduction

Oo- and *dai-* (both written in the same Chinese charactor) are nominal prefixes in Japanese which add the meaning (roughly) 'big' to the host noun. First, consider the following two groups (1) and (2).

(1) a. ***Oo****-doori*
big-street
'a big street'
b. ***Oo****-shoobu*
big-game
'a big game'
c. ***Oo****-sawagi*
big-noise
'a big noise'
d. ***Dai****-mondai*
big-problem
'a big problem'

(2) a. ***Oo****-bakamono*
big-idiot
'a big idiot'
b. ***Oo****-ganemochi*
big-rich
'a wealthy person'
c. ***Oo****-zakenomi*
big-drinker
'a heavy drinker'
d. ***Dai****-fan*
big-fan
'a big fan'

The above two types show a contrast when they are paraphrased with the adjective *ookii* 'big'. Those in the first group in (1) maintain the original reading as shown in (3), whereas those in the second group (2) become odd and may sound somehow comical as shown in (4).

(3) a. ***Ookii*** *toori*
big street
'a big street'
b. ***Ookii*** *shoobu*
big game
'a big game'
c. ***Ookii*** *sawagi*
big noise
'a big noise'
d. ***Ookii*** *mondai*
big problem
'a big problem'

(4) a. #***Ookii*** *bakamono*
big idiot
Intended: 'a big idiot' (someone who is very idiotic)
b. #***Ookii*** *kanemochi*
big rich
Intended: 'a wealthy person'
c. #***Ookii*** *sakenomi*
big drinker
Intended: 'a heavy drinker'
d. #***Ookii*** *fan*
big fan
Intended: 'a big fan'(someone who is very fond of something)

A similar kind of contrast also shows up in the following case in which the adjective appears in a predicative position of the sentence. They are all grammatical, but those in (6) mean 'literally big' and do not mean the same as those in (2).

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(5) a. *Ano toori-wa ookii.*
that street-TOP big
'That street is big.'
b. *Ano shoobu-wa ookii.*
that game-TOP big
'That game is big.'
c. *Ano sawagi-wa ookii.*
that noise-TOP big
'That noise is big.'
d. *Ano mondai-wa ookii.*
that problem-TOP big
'That problem is big.'

(6) a. *Ano bakamono-wa ookii.*
that idiot-TOP big
'That idiot is big.'
b. *Ano kanemochi-wa ookii.*
that rich-TOP big
'That rich person is big.'
c. *Ano sakenomi-wa ookii.*
that drinker-TOP big
'That drinker is big.'
d. *Ano fan-wa ookii.*
that fan-TOP big
'That fan is big.'

The above contrasts show that the meaning of size prefixes (*oo-* 'big' and *dai-* 'big') varies. There are (at least) two distinct readings: literal size reading as in (1) and degree reading as in (2).[1] The meaning of the prefixes depend on the meaning of host nouns they attach to. It seems that the degree reading is unavailable for the adjective *ookii* 'big', which results in the oddness in (4) and (6).

2 Degree reading of size adjectives and the two generalizations

Size words like *big* tend to have degree reading cross-linguisitically. According to Morzycki (2009), for example, size adjectives such as *big* and *enormous* in English (as well as in other languages like Spanish, Polish, German etc.) are ambiguous between the literal-size reading and the degree reading. Depending on the noun they modify, only one of the two readings is available or becomes prominent. Size adjectives in (7) have the literal-size reading, and those in (8) are ambiguous but most naturally interpreted with the degree reading. The following examples are from Morzycki (2009).

(7) a. an *enormous* mistake
b. a *huge* snowstorm
c. a *big* catastrophe
d. a *huge* problem

(8) a. an *enormous idiot*.
b. a *big stamp-collector*.
c. three *huge goat cheese enthusiasts*
d. most *really colossal curling fans*

Morzycki (2009) further observes that degree readings of size adjectives are sensitive to the syntactic position in which they appear. As the following examples from Morzycki (2009) show, degree readings are unavailable in predicative positions.

(9) a. George is an idiot, and he is enormous. (literal-size reading only)
b. That stamp-collector is big. (literal-size reading only)

Degree readings of size adjectives are also unavailable post nominally as shown in (10-b) and (11-b).

(10) a. a bigger stamp-collector than any I've met before (ambiguous)
b. a stamp-collector bigger than I've met before (literal-size reading only)

(11) a. too big a war-monger to tolerate (ambiguous)
b. a war-monger too big to tolerate (literal-size reading only)

Based on the above fact, Morzycki (2009) makes the follwoing generalization.

(12) *The Position Generalization*
Degree readings of size adjectives are possible only in attributive positions (in English, prenominally).

Japanese size adjectives do not seem to accord with this generalization. Size adjective *ookii* 'big' does not have a degree reading irrespective of the syntactic position. On the other hand, size prefixes *oo-* 'big' and

[1] There are also other kinds of meaning such as 'great', 'old', and 'rough', e.g. *oo-danna* 'a great/old master', *oo-edo* 'great Edo', *dai-senpai* 'an old senior', *oo-waku* 'rough framework'.

dai- 'big' may have literal size reading or degree reading depending on the host noun. Since prefixes are only possible prenominally and never appear in a predicative position to begin with, Japanese data of size prefixes may have nothing to say about the Position Generalization.

Morzycki (2009) makes another generalization about size adjectives, namely the Bigness Generalization.

(13) *The Bigness Generalization*
Adjectives that predicate bigness systematically license degree readings. Adjectives that predicate smallness do not.

This comes from the fact that size adjectives such as *small* and *tiny* do not have a degree reading to mean something like 'slight'. As shown below, *a small idiot*, for example, does not mean 'a slight idiot' but rather means 'an idiot who is physically small'.

(14) George is a {small/tiny/minuscule/microscopic/diminutive/minute} idiot. (Morzycki, 2009)

Importantly, as Morzycki (2009) points out, "[t]here is no *conceptual* difficulty associated with low degrees of (say) idiocy" and the generalization is "specifically about degree readings of size adjectives".

Morzycki (2009) proposes a semantic analysis of size adjectives and derives the degree reading of size adjectives compositionally. Essentially, he first proposes that nouns such as *idiot* denotes a measure function from idividuals to their degree of idiocy (just like adjectives such as *tall* do). What the prenominal size adjectives like *big* do semantically is that it takes the scale introduced by the gradable noun (e.g. the idiocy scale) and states that the degree (of idiocy) is greater than the standard (degree of idiocy), roughly speaking.

Most significantly, the proposed analysis accounts for the Position Generalization and the Bigness Generalization. Briefly speaking, the Position Generalization is derived by a particular syntactic configuration, in which the size adjective appears in the specifier of the nominal degree projection. On the other hand, the Bigness Generalization is explained in terms of the mechanism of degree semantics. Specifically, if we were to compose the degree reading for *small idiot* just like *big idiot*, it will end up in a trivial meaning. That is, to say *x is a small idiot*, "it will be true of an idividual *x* iff the degree of *x*'s idiocy is at least as great as the smallest that meets the smallness standard, and *x* meets the idiot standard". However, since this smallest degree on the idiocy scale is 'not idiotic at all', it will always be true that the degree of *x*'s idiocy meets or exceeds it. Therefore, the degree reading introcuded by *small* becomes vacuous, and in the end *a small idiot* simply means the same as *an idiot*.

3 A possible research question

Turning to Japanese, there are size prefixes such as *ko-* 'small' and *shoo-* 'small'. Typically, they have a literal size reading as in (15).

(15) a. ***Ko**-beya*
small-room
'a small room'
b. ***Ko**-daiko*
small-drum
'a small drum'
c. ***Ko**-zara*
small-plate
'a small plate'
d. ***Shoo**-wakusei*
small-planet
'an asteroid'

Besides the literal size meaning, *ko-* 'small' shows various other kinds of meaning such as 'a little' and 'light'.

(16) a. ***Ko**-butori*
small-fat
'rather fat'

b. ***Ko***-*bashiri*
small-run
'trotting/running with short steps'
c. ***Ko***-*zaiku*
small-handicraft
'easy/cheap' (as in 'an easy job' or 'a cheap trick')
d. ***Ko***-*same*
small-rain
'light rain'

Furthermore, unlike the counterpart prefixes *oo-* 'big' and *dai-* 'big', the size prefix *ko-* 'small' (but not *shoo-*) can also attach to adjectives (as in (17)), adjectival nouns (as in (18)), numeral expressions to mean 'almost' or 'nearly' (as in (19)), and sometimes even verbs (as in (20)).

(17) a. ***Ko***-*dakai oka*
small-tall hill
'slightly tall hill'
b. ***Ko***-*muzukasii rikutsu*
small-difficult argument
'a tortuous argument'

(18) a. ***Ko***-*giyoo-na hito*
small-handy person
'a person who is a little handy at something'
b. ***Ko***-*rikoo-na hito*
small-clever person
'a littel clever person'

(19) a. ***Ko***-*ichi-jikan*
small-one-hour
'a little less than an hour'
b. ***Ko***-*han-nichi*
small-half-day
'almost half a day'

(20) a. ***Ko***-*zuku*
small-push
'poke lightly'
b. ***Ko***-*gakureru*
small-hide
'hide (oneself) a little bit'

The examples in (17)-(20) show various kinds of meaning which the size prefix *ko-* 'small' may have. Those in (17) and (18) apparently seem to be the case of degree reading since adjectives are associated with a scalar meaning. However, it is less clear whether (19) and (20) are also instances of degree reading.

A more peculiar case is shown below in (21). The prefix *ko-* attaches to a noun phrase, which is part of a semi-idiomatic phrase, and results in an adverbial meaning such as 'slightly', 'lightly', 'a little' etc. As shown in the parentheses, they all have a non-prefixed version too.

(21) a. ***Ko***-*mimi-ni hasamu* *(cf. mimi-ni hasamu)*
small-ear-*dat* put.between
'to overhear'
b. ***Ko***-*bara-ga suku* *(cf. hara-ga suku)*
small-stomach-*nom* get.empty
'to get a little hungry'
c. ***Ko***-*kubi-o kasigeru (cf. kubi-o kasigeru)*
small-neck-*acc* tilt
'to slightly tilt one's neck'
d. ***Ko***-*baka-ni suru (cf. baka-ni suru)*
small-itiot-*dat* do
'to look down on someone'

Those in (21) have been considered as an example of bracketing paradox, or syntax-semantics mismatch, and have been discussed by syntacticians and semanticists. For example, Kitagawa (1986) proposes a syntactic analysis, arguing for a movement approach. It is argued that the prefix *ko-* 'moves' out of the nominal domain to attach to the verb phrase. Recently, on the other hand, Fukushima (2014) proposes a non-movement analysis, deriving the adverbial meaning compositionally in a framework of HPSG.

From a perspective of compositional semantics, the underlying syntacitic structure of course matters to derive the adverbial meaning from the prenominal prefix. However, the precise semantic analysis of these

expressions still remains to be unclear. Fukushima (2014) briefly suggests in a footnote to adopt the idea by Cresswell (1985) and introduces a function *dist* that returns a real number indicating the distance between the two center points of the individual's movement at moment *m1* and *m2*. For example, in the case of *ko-kubi-o kasigeru* 'to slightly tilt one's neck' in (21-c), this allows to derive the meaning (roughly) 'the distance of the neck movement is shorter than the average of all other distances of neck-tilting movement'. But still, as Fukushima (2014) points out himself, "this seems rather crude and would no do full justice to the interpretation of the example" (Fukushima, 2014), which is clear from other examples in (21). The notion of distance (unless interpreted somewhat metaphorically) does not seem to be applicable to predicates such as *mimi-ni hasamu* 'to hear', *hara-ga suku* 'to get hungry', and *baka-ni suru* 'to look down'.

Thus, more work needs to be done to precisely derive various kinds of meaning that arise from the size prefix *ko-*. If we were to assume that *ko-* in all or some of the examples (17)-(21) has degree reading, we need to make it clear what kind of scale it is associated with. According to some dictionaries such as *Daijirin*, *ko-* in some cases also expresses the speaker's subjective impression such as affection and contempt. If this is the case, then another issue arises as to whether this additional subjective meaning is *expressive meaning*, which is called *Conventional Implicature* (CI) in the sense of Potts (2005).

4 For future research

Unfortunately, at the moment I am not able to futher narrow down the research question just mentioned and actually give an analysis to fully account for the size prefixes in Japanese. But at least, I hope that this brief note on size adjectives/prefixes and degree modification presents a linguistically interesting topic, which awaits more inventigation.

As a next step, I would like to consult on more data of the size prefix *ko-* and see if all (or some) of them can be explained in terms of degree modification. If it becomes clear that any one of them is indeed an instance of degree modification, then I would like to come back to the Bigness Generalization by Morzycki (2009) to see how the case of Japanese prefix *ko-* fits into the theory of degree reading of size adjectives. In the end, it might turn out to be the case that Japanese size prefixes have nothing to say about the Bigness Generalization and Position Generalization (since the two generalizations are in fact about size adjectives, not prefixes), but still it will be worth making it explicit in what way (syntactically and semantically) the size prefixes are different from size adjectives. Again, as Morzycki (2009) mentions, "[t]here is no *conceptual* difficulty associated with low degrees of (say) idiocy". Japanese prefix *ko-* seems to suggest that it is indeed the case. So, the question arises as to why the morphological/syntactic difference (i.e. whether it is an adjective or a prefix) correlates with the semantic difference (i.e. whether it is subject to the Bigness Generalization or not).

References

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