

Degree Polarity and Licensing of Measure Phrases in Japanese

In this paper, we argue that the existing semantic theories of measurement need to be amended in their polarity-related part in order to account for the phenomena commonly found in Japanese expressions containing measure phrases (MP). Specifically, we propose that the MP licensing condition excluding any negative-degree property words from measure expressions, as in **(a novel is) 4 pages short / *has a shortness of 4 pages*, is language specific since it does not hold for Japanese, vide *4 peezi no mizikasa / 4 peezi toiu mizikasa / mizikasa 4 peezi*. These facts of Japanese are of semantic significance (unlike similar instances of English, such as *This table is (only) 15 cm low*, where the negative degrees are acceptable only for pragmatic reasons, as a means of emphasis).

In the standard accounts, adjectives modified by MPs, which are their arguments saturating the degree place, must satisfy the following conditions: the scale underlying the degree has to be graded with units matching the property of the head, and MPs can only be licensed by positive degrees. For example, in the line of research represented by von Stechow (1984) and Kennedy (2001), positive and negative degrees are projected on a scale as two complementary intervals. The positive degrees range from zero to some point, and the negative degrees from some point to the infinity (or the upper end of the scale). In this semantics 'functions denoted by MPs are defined only for degrees of particular scales (determined by the head of the MP) and for degrees of particular sorts - closed intervals on the scale.' The oddness of phrases like *?2 meters short* is thus accounted for in the following way: since the negative degrees are represented by open, infinite intervals, they cannot be ascribed real, definite numbers. The same restriction is then extended to de-adjectival nouns (e.g. Bierwisch 1989) which renders genitive phrases as **a shortness of 2 meters faulty*.

However, our data from Japanese, along with the results of questionnaire surveys, prove that nouns derived from negative-degree adjectives can readily form measure expressions with MPs. The sentence frames we analyze are divided into three syntactic types:

Genitive/copular phrases

- (1) Kono hen-no umi wa 3 meetoru kurai no asasa nanode
this vicinity-GEN sea TOP 3 meter about GEN shallowness because
zasyoo suru hune-ga ooi.
run aground ship-NOM many
'Since the sea depth [**shallowness*] in this area is only 3 meters, many ships run aground.'

Phrases with the complementizer 'toiu'

- (2) Sekai-no meisaku-o ippen nisen zi toiu mizikasa-de,
world-GEN masterpiece-ACC piece 2000 character called shortness-PP
syookai site-ikimasu.
introduction do-will
'I am going to introduce famous works of world literature in 2000 characters short excerpts.' [**the shortness of 2000 characters*]

Phrases, in which the MP is right-adjacent to the (negative-degree) property word

- (3) Saisin-no keitai denwa-wa karusa (nanto) 20 g.
newest-GEN portable phone-TOP lightness (excl.) 20 g
'The newest cellular telephone is as light as 20g.'
[*its lightness is 20 g]

In addition to the corpus examples, we corroborated our analysis with the results of two types of questionnaire surveys conducted among the speakers of Japanese: acceptability judgments in which the negative-degree examples were evaluated on par with their negative counterparts occurring in analogous syntactic structures and elicitation tasks where the participants elected the negative-degree expressions in the contexts clearly indicating the low extent of properties denoted by deadjectival nouns, as in (1)-(3).

Japanese has been known for exhibiting unique properties as far as degree expressions are concerned. In the aforesaid analysis of adjectival phrases, the degree argument of a gradable predicate DegP, saturated by measure phrases, degree modifiers, or comparative constructions occupies the SpecAP position. However, as argued in Snyder et al. (1994) and Hayashishita (2007), Japanese adjectival phrases are impoverished, lacking the position to host the degree variable.

Finally, we propose the following modified MP licensing conditions for Japanese: (i) the degree has to be positive in order to obtain a *neutral* measurement expression, but the negative-degree de-adjectival nouns can yield measure expressions as well; (ii) negative degrees are *semantically* excluded from measurement expressions of the type 'NP *wa* A_{STEM-SA} x units (*da*)' where the MP is right-adjacent to the de-adjectival noun, and from other types of copular sentences; (iii) as a general property of Japanese, no adjectives (regardless of their polarity) in the non-comparative degree can take MPs as their arguments (e.g. **Fuzisan wa 3776 meetoru takai.*); (iv) the unit of measurement in the MP has to be determined by the head.

References

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