

**Degree Nominals in Japanese and Chinese Comparatives**

This analysis aims at contributing to Japanese and Chinese comparatives from cross-linguistic perspectives. We develop our argument in which Japanese and Chinese are only allowed to create phrase-typed comparatives. Japanese, unlike Chinese, allows seemingly clausal comparatives, which in fact are not clausal, but in actuality, are the complex nominals that head relative clauses. In this presentation, we focus on the contrast in acceptability between the ‘amount’ and the ‘non-amount’ typed comparatives, observed first by Ishi (1991).

- (1) a. John-wa [Mary-ga katta ]-yori **takusanno** kasa-o katta  
 John-Top [Mary-Nom bought]-than many umbrella-Acc bought  
 ‘John bought more umbrellas than Mary bought.’  
 b. ??John-wa [Mary-ga katta ]-yori **nagai** kasa-o katta  
 John-Top [Mary-Nom bought]-than many umbrella-Acc bought  
 ‘John bought a longer umbrellas than Mary bought.’

Our proposals are as follows: (i) the deleted head nominals in the *yori*-clause are treated uniformly as degree nominals; (ii) the degradation observed in (1b) is attributable to violation of Specificity Island Constraint (SIC), and (iii) ‘amount’ typed comparatives like (1a) may derive the degree in the *yori*-complement via ‘event abstraction’ as a last resort option.

According to Sudo (2014), seemingly clausal comparatives in Japanese are derived as a result of deleting the head noun of the complex nominal complement of *yori*. Furthermore, what is especially noteworthy in Sudo (2014) is that attributive clausal comparatives have two possible underlying structures, as shown in (2). Note that the degree nominal *ryo* ‘amount can be optionally deleted in addition to the concrete nominal *hon* ‘book’.

- (2) a. John-wa [Bill-ga katta ~~ryo~~ ]-yori takusan hon-o katta  
 John-Top[Bill-Nom bought amount]-than many book-Acc bought  
 b. John-wa [Bill-ga katta ~~hon~~ ]-yori takusan hon-o katta  
 John-Top[Bill-Nom bought book]-than many book-Acc bought

Along this line, seemingly clausal comparatives in Japanese are identical in nature to phrasal comparatives before deletion applies. This indicates that the grammatical status of clausal comparatives can be attributed to the grammaticality of their structures before deletion applies.

However, Sudo’s analysis fails to account for degraded status observed in (1b), because the underlying structure before deletion, namely, the relative clause structure headed by the concrete noun *hito* ‘person’, or the nominal morpheme *mo*, is completely fine. According to Sudo (2014) and his informants, this type of contrast is weak or even unobservable. Also referring to a remark by Beck et al (2004), he suggests the possibility that this phenomenon may be essentially pragmatic in nature. Our informants (all from western Japan), on the other hand, judge the contrast as obvious. The analysis of uniformly assuming the head (covert) nominals as degree nominals would yield the underlying structures for (1), naturally predicting the degradation in acceptability.

- (3) a. John-wa [Mary-ga pro katta **kazu/honsuu** ]-yori takusanno kasa-o katta  
 John-Top[Mary-Nom pro bought number ]-than many umbrella-Acc bought  
 b. ??John-wa [Mary-ga pro katta **nagasa** ]-yori nagai kasa-o katta  
 John-Top [Mary-Nom pro bought length ]-than many umbrella-Acc bought

To yield the LF structures of the *yori* complement, we assume with Sudo (2014) that degree abstraction is syntactically involved in Japanese (contra Beck et al.): the degree nouns, *kazu* ‘number’ and *takasa* ‘height’ denote a predicate of degrees and compose with the relative clauses after degree abstraction applies, via Predicate Modification (Heim and Kratzer 1998).

- (4) a. (the) [ $\lambda$  d. Mary bought [DP the d-long umbrella]] length  
 b. (the) [ $\lambda$  d. Mary bought [DP the d-many umbrellas]] amount

The degree abstraction in the relative clauses involves degree movement, but we claim that this movement violates SIC. The DP in the *yori* clause should be given a definite interpretation in that in a given episodic context, the target object for comparison should be unique and maximal. Thus this degree movement out of DP should be blocked due to the island constraint. Interestingly, note that if the *yori*-complement bears a generic (habitual) interpretation, the acceptability increases substantially, as shown below in (5a).

- (5) a. John-wa [Mary-ga hudan pro kau ]-yori nagai kasa-o katta  
 John-Top[Mary-Nom usually pro buy ]-than long umbrella-Acc bought  
 b. (the) [ $\lambda$  d. Mary bought(s) [DP a d-long umbrella(s)]] length

The *yori*-complement of (5a) is described in most contextually relevant situation  $s$ , which consist of a set of smaller situations  $s'$  such that  $s'$  is a situation of Mary buying an umbrella. In one of the smaller situations  $s'$  the umbrella that Mary bought is conceived as unique and hence given a definite interpretation. However, in a wider situation  $s$  there are multiple situations of Mary buying an umbrella  $s'$  and multiple umbrellas involved. Thus, with a wider situation presumed, the object can be analyzed as an indefinite DP, as depicted in the LF representation in (5b). If this is the case, the degree movement out of the DP will become irrelevant to SIC. This analysis can, as it is, be applied to the Chinese comparatives where the head nominals are degree nouns.

- (6) a. ?? John mai le bi Mary mai de haiyao changde san.  
 John buy PT than Mary buy DE more long umbrella  
 'John bought longer umbrella than Mary did.'  
 b. John mai le bi Mary pingshi mai de haiyao changde san.  
 John buy PT than Mary usually buy DE more long umbrella  
 'John bought longer umbrella than Mary usually does.'

However, there still remains an unresolved issue. Why is it that the clausal comparative in (1b) is more acceptable with disregard to types of situations. When we overview attributive clause comparatives in Japanese, it turns out that the 'amount' comparatives are more commonly acceptable in Japanese. This suggests that the gradable property of events denoted by a verb has to do with the degree of the object DP on a scale. More concretely, in (1a) as the amount of buying-an-umbrella events accumulates, the amount of umbrellas does, too. However, this does not hold of (1b): the amount of events denoted by the VP never increases the length of umbrellas. With more detailed observations presented, we propose that 'event' abstraction can be involved in the *yori*-complement as a rescue strategy (or a last resort strategy), instead of degree abstraction. What makes this possible is a homomorphism  $h$ , a structure-preserving function that maps elements in the event domain to those in the degree domain in a monotonic fashion (Krifka 1989 and Nakanishi 2007). The analysis explored here is not a mechanism particular to comparatives in Japanese, but rather an extension out of a general mechanism proposed by Nakanishi, which in fact has handled floating quantifier constructions in Japanese and Split NP Topicalization in German.

## References

- Beck, et al. (2004) Parametric Variation in the Semantics of Comparison: Japanese vs. English. *Journal of East Asian Linguistics*, 13: 289-344. Heim, I and A. Kratzer (1998) *Semantics in generative grammar*. Oxford: Blackwell Publishers. Ishii, Y. (1991) *Operators and Empty Categories in Japanese*. Ph.D. dissertation, University of Connecticut, Storrs. Krifka, M. (1989) Nominal Reference, Temporal Constitution and Quantification in Event Semantics. In R. Bartsch, J. van Benthem and P. van Emde Boas eds., *Semantics and Contextual Expression*, 75-115. Foris, Dordrecht. Sudo, Y. (2014) Hidden nominal structures in Japanese clausal comparatives. *Journal of East Asian Linguistics* Nakanishi, K. (2007) Measurement in the Nominal and Verbal Domains. *Linguistic Philosophy* 30: 235-276.