

## Nonconstituent Clefting in Japanese

Cleft constructions in many languages share the property of rearranging the language's typical word order for the realization of some information-structural goal. This is also true of the Japanese cleft, which has the structure in (1), a simple example of which appears in (2). In addition to the possibility of clefting a verbal argument or adjunct, however, Japanese also allows several of these to be clefted together (e.g. the subject and the object), as in (3)-(5). These are cases of 'nonconstituent' clefting because the clefted or 'focal' clause (in the sense that it conveys new information) contains pairs of arguments and adjuncts without their head verb. Previous syntactic treatments of this problem include Kuwabara (1996), Koizumi (1999, 2000), Takano (2002), and Fukushima (2003).

The important work of Kuwabara and Koizumi takes the clefted constituent to be an instance of remnant movement; thus, the verb in (3) is said to raise to a higher position c-commanding the VP (or S) constituent, and then the null-headed remnant VP (or S) moves to the focus position (as shown in (6)). But as we argue in detail, there are a number of significant empirical objections to such analyses as stated. For example, in order to explain why overt VPs, unlike the remnants, cannot appear in the focus position (see (7)), raising must be obligatory, but that creates the new problem of explaining coordination of constituents containing ditransitive verbs and their direct objects, as in (8). While possible responses to such objections could be met by adding various ad hoc mechanisms (in the example just mentioned, this would require scrambling of the indirect object out of the VP to a position lower than the subject), these moves have little independent motivation, and, as we show, reflect little beyond a forced reaction to the serious factual contraindications we have noted. Subsequent efforts to shore up this line of analysis, such as Takano's, have the effect of positing an NP status for these remnant VPs, making it difficult to explain why the structures to which such NP status is attributed never pattern as NPs in any other context, while Fukushima's, confined as it is to cases in which the cleft contains numeral classifiers and inapplicable as stated to the great majority of cases where such numeral classifiers do not appear, lacks generality.

A consideration of the cleft data in Japanese from the perspective of Combinatory Categorical Grammar (CCG) suggests that the restrictions and possibilities associated with the focal position in such constructions is just what we would expect, having availed ourselves of only those assumptions and mechanisms that have been proposed in the literature of CCG and that find empirical motivation elsewhere in the grammar of Japanese. As is the trademark of categorial approaches, the same operations are at work in the syntax and semantics, which enables us to explain how the (compositional) meanings of such apparent nonconstituents in the focus position are built up and indicate their information-structural status within the whole sentence, questions that are essential to any adequate account of this construction. Under our analysis, the focal clause is always a functor that takes the topicalized constituent as argument to return a sentence. Specifically, in the case of clefted arguments, this is accomplished via type-raising (TR), which is unnecessary with modifiers because they are already functors. If there is more than one clefted argument or adjunct, as in the nonconstituent cases, these conjoin via function composition (FC). The focal constituent, built up in this fashion, next combines with the copula, whose job it is to syntactically switch the direction in which this new constituent looks for its argument (i.e. a forward (right) slash becomes a backward (left) slash) and semantically mark its domain as the focus ('rheme,' in the terms of Steedman). *No* and *wa* are treated as markers of nominalization and topicalization, with the latter marking its domain as the topic ('theme,' in the terms of Steedman). Finally, the 'focus + copula' takes the 'topic + *no* + *wa*' as argument and yields a sentence. In part because TR is lexically-based, this analysis accommodates all grammatical examples of Japanese clefting and blocks those that are ungrammatical (e.g. extraction of a pronominal adjective is not possible because TR raises over S-rooted categories). The arguments and analysis we present, then, can be added to a growing body of work (not restricted to CCG) showing that some focus constructions cross-linguistically and categorically resist a treatment in terms of movement (c.f. Culicover and Jackendoff 2005).

## Examples

- (1) ((A: Topic) no) wa (B: Focus) da, which literally means something like "A is B".
- (2) [Taroo ga t<sub>i</sub> yonda] no wa [kono hon (o) ]<sub>i</sub> da.  
T. NOM read-PAST NMLZ TOP this book ACC COP  
"It is this book that Taro read."
- (3) [Ken ga miseta] no wa [Mari ni kono hon o] da.  
K. NOM showed NMLZ TOP M. DAT this book ACC COP  
lit: "It is this book to Mari that Ken showed."
- (4) [Taroo ga happyoo-sita] no wa [kyonen SALT de] da.  
T. NOM presented NMLZ TOP last-year at-SALT COP  
"It is last year at SALT that Taro presented (a paper)."
- (5) [Ken ga Mari ni barasita] no wa [tikasitu de sono himitu o] da.  
K. NOM M. DAT disclose NMLZ TOP basement LOC that secret ACC COP  
lit: "It is in the basement that secret that Ken disclosed to Mari."
- (6) [Ken ga t<sub>i</sub> miseta]<sub>j</sub> no wa [VP Mari ni kono hon o t<sub>j</sub> ]<sub>i</sub> da.  
K. NOM showed NMLZ TOP M. DAT this book ACC COP  
lit: "It is this book to Mari that Ken showed."
- (7) \*[Taroo ga t<sub>i</sub> ] no wa [<sub>VP</sub> kono hon o yonda]<sub>i</sub> da.  
T. NOM NMLZ TOP this book ACC read COP  
intended: "What Taro did was read a book."
- (8) [John wa] [Bill ni] [sono hon o kasite] [kono zassi o ageta].  
J. TOP B. DAT that book ACC lent this magazine ACC gave  
"John lent that book and gave this magazine to Bill."

## References

- Culicover, P. and Jackendoff, R. 2005. *Simpler Syntax*. Oxford University Press.
- Dowty, David. 1988. Type raising, functional composition, and non-constituent coordination. In R. T. Oehrle, E. Bach, and D. Wheeler (eds.), *Categorial Grammars and Natural Language Structures*, 153-198. Dordrecht: Kluwer.
- Fukushima, Kazuhiko. 2003. Verb raising and numeral classifiers in Japanese: Incompatible bedfellows. *Journal of East Asian Linguistics* 12:317-347.
- Koizumi, Masatoshi. 1999. *Phrase Structure in Minimalist Syntax*. Tokyo: Hituzi Syobo.
- Koizumi, Masatoshi. 2000. String vacuous overt verb raising. *Journal of East Asian Linguistics* 9: 227-285.
- Kuwabara, Kazuki. 1996. Multiple *Wh*-phrases in Elliptical Clauses and Some Aspects of Clefts with Multiple foci. In Koizumi, Oishi, and Sauerland (eds.), *Formal Approaches to Japanese Linguistics 2, MIT Working Papers in Linguistics* 29. Cambridge: Dept. of Linguistics and Philosophy, 97-116.
- Steedman, Mark. 2000a. Information structure and the syntax-phonology interface. *Linguistic Inquiry* 31(4):649-689.
- Steedman, Mark. 2000b. *The Syntactic Process*. Cambridge, Massachusetts: The MIT Press.
- Takano, Yuji. 2002. Surprising constituents. *Journal of East Asian Linguistics* 11:243-301.