

Nonconstituent coordination in Japanese as constituent coordination: A categorial grammar analysis

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This paper presents two pieces of data that pose problems for both of the two major kinds of analyses of nonconstituent coordination (NCC) in Japanese in the literature—DELETION-BASED analyses (Mukai 2003; Ito and Chaves 2008) and MOVEMENT-BASED analyses (Kuno 1978; Saito 1987)—and proposes a novel solution to these problems in a variant of CATEGORIAL GRAMMAR (CG) with labelled deduction.

First, as noted by Takano (2002), examples like the following induce the so-called INTERNAL (i.e. non-anaphoric) READINGS of *onazi* ‘same’:

- (1) Taroo-wa Hanako-ni, (sosite) Ziroo-wa Mitiko-ni **onazi hon-o** kasi-ta.
Taro-TOP Hanako-DAT and Jiro-TOP Michiko-DAT same book-ACC lend-PAST
‘Taro lent Hanako, and Jiro lent Michiko, the same book.’

Deletion-based analyses incorrectly predict that (1) is semantically equivalent to its non-elided source, which entirely lacks this reading; movement-based analyses make the same prediction, assuming, as is standard in such analyses, that the material moved out of the conjuncts is reconstructed across the board to the movement sites in each conjunct at LF.

The second problem comes from the binding patterns of the reflexive *zibun* in sentences like the following:

- (2) John-wa Mary-ni, (sosite) Tom-wa Susan-ni [**zibun-no** heya-de benkyoo-sase-ta].
John-TOP Mary-DAT and Tom-TOP Susan-DAT self-GEN room-in study-cause-PAST
‘John made Mary study in his room and Tom made Susan study in his room.’
‘John made Mary study in her room and Tom made Susan study in her room.’

NOT: ‘John made Mary study in his room and Tom made Susan study in her room.’

NOT: ‘John made Mary study in her room and Tom made Susan study in his room.’

In Japanese, both the matrix subject and the embedded logical subject (surfacing in dative) can in principle be the binder of *zibun* in semantically complex predicates like the causative predicate *benkyoo-sase-ta*. But in (2), in which one token of *zibun* is shared across conjuncts in the surface string, mixed binding patterns (shown in the translations) are unavailable. Deletion-based analyses incorrectly predict all of the four readings, since the non-elided counterpart of (2) has all of these readings. Movement-based analyses make the same prediction, essentially for the same reason as with (1): since (2) is derived from its non-elided counterpart, unless some ad-hoc constraint is imposed which specifically rules out the mixed pattern, all of the four readings will be assigned for (2) as well.

Essentially, the problem of these previous approaches is that both of them assimilate NCC sentences to coordination of full-fledged clauses at some level of syntactic representation. Categorial grammar (CG) provides a radically different perspective on this problem: in the standard treatment of NCC in CG (cf., e.g., Dowty 1988; Steedman 2000), NCC is not reduced to coordination of full-fledged clauses at ANY ‘level’ of analysis. In the CG analysis, the apparent nonconstituents are just ordinary surface constituents with their own full-fledged meanings. This paper demonstrates in detail that, this simple assumption, embedded in the fully explicit and transparent syntax-semantics interface of CG, automatically yields correct predictions for the above two problematic cases.