

Interpersonal Modal Particles in non-Root Sentences: Head Feature Movement

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This paper discusses a paradigm of interpersonal modal particles (IMP) in **non-root sentences** with special attention to adverbial clauses (ACs) in Italian/German and Japanese. The paradigm supports the view that head movement is syntactic in nature (cf. Roberts 2010).

Traditional descriptive grammarians of Japanese (cf. Minami (1974)) found that Japanese functional heads (FHs) are strictly ordered in Japanese main/subordinate clauses as in (1), where V is followed by the FH Voice, and then is followed by the FH Aspect, etc.

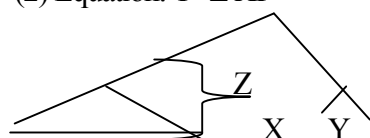
(1) Voice < Aspect < Negation/Polarity < Tense < Speaker's Mood < Interpersonal Mood

By refining Minami's study of adverbial clauses (ACs), Noda noticed the following pattern:

G \ FH	Voice	<	Aspect	<	Neg	<	Tense	<	Speaker's mood	<	Interpersonal Mood
Group A <i>nagara</i> 'while'	yes		no		no		no		no		no
Group B: <i>zuni</i> 'without'	yes		yes		no		no		no		no
Group C: <i>ba</i> 'if'	yes		yes		yes		no		no		no
Group D <i>node</i> 'because'	yes		yes		yes		yes		no		no
Group E <i>ga</i> 'though'	yes		yes		yes		yes		yes		no

This chart reads as follows. The intersection of the hierarchically ordered functional heads at the top of the horizontal line and the adverbial clause head listed at the far left of the vertical line is yes or no. If yes, the FH may appear in an AC headed by the AC head; if no, such a FH may not appear in the AC headed by the AC head. In addition to this internal structure of ACs, Noda realizes an interesting correlation of the internal and external structures of ACs. He discovered that each type of ACs has what he calls concord relation with the FHs of the matrix clause, which can be expressed by the X'-format, where linear order is irrelevant:

(2) Equation: Y=Z XP



(i) X= functional head of the matrix clause

(ii) Y=complement of X

(iii) Z=adverbial clause having a concord relation with X

By spec-head agreement, a FH (X) in the matrix clause has a concord relation with an AC (Z), and Z and Y may contain exactly the same type of FHs. For instance, the AC headed by *nagara* 'with/while' of Group A (=Z) has a concord relation with the FH Aspect in the matrix clause (=X), which selects Voice (=Y); then, the AC may contain only Voice head, not higher FHs like Neg. The intuition behind Noda's idea can be expressed as follows: "The more FHs an adverbial clause contains, the higher the position at which the AC is licensed in the matrix clause." This intuition, at least partially, seems to be attested by the IMPs *ja* in German and *mica* in Italian: once an IMP appear in an AC, the AC scope outside Neg in the matrix clause (cf. Coniglio (2009), Cardinaletti (2009)); the same seems to hold in English as well, as in (3) (cf. Sawada and Larson (2004)).

(3) a. I am not going out for dinner because he is cooking. (Neg > because)

b. I am not going out for dinner because *probably* he is cooking. (*Neg > because)

In contrast, Japanese IMPs may **not** appear in ACs, as is seen in the chart below (1). The questions are (i) where this asymmetry of the appearance of IMPs in ACs in Italian/German and Japanese comes from, and (ii) how the parallelism of FHs in ACs and the attachment site of ACs to the matrix clause in (2) is to be captured. My proposal is to refine Haegeman's (2010) analysis of ACs, where the pattern of FHs appearing in conditional ACs is derived from Relativized Minimality (RM) (Rizzi 1990. 2004). For instance, based on the facts that conditional ACs may not host high modal adverbs as illustrated in (4), Haegeman claims that conditional clauses involve empty operator movement from Cinque's (1999) MoodP (irrealis) to the highest clause initial subordinate position (Sub), as in (5). Here, high FHs block empty operator movement of the same mood type by RM, and may not appear in ACs.

(4) ?*If frankly he's unable to cope, we'll have to replace him. (Speech act)

(5) [Sub *if* [MoodP_{speech act} > MoodP_{evaluative} > MoodP_{evidential} > ModP_{epistemic} > TP > MoodP_{irrealis} Op $\uparrow$ *]

Haegeman's approach apparently does not seem to deal with Japanese ACs, since the intervening elements in ACs are of different types, like Aspect, Voice. **I propose that what moves in Japanese ACs is not an empty operator but an empty subordinate head feature**, as shown in (6); in contrast, **what moves in Italian/German ACs is an empty operator**. Thus, in Japanese, whenever an empty subordinate **head** feature moves to the highest Sub position to create a chain of the head type, intervening FHs necessarily count as an intervener, making it impossible to create a legal chain/representation by RM; thus, the illegal representation with an IMP within an AC in Japanese is ruled out by Full Interpretation (FI). In contrast, on the natural assumption that IMPs in Italian/German occupy the head position, the IMPs do not count as an intervener for the chain created by empty **operator** movement in ACs; thus the representation with IMPs in ACs is legal in Italian/German. Our idea provides us with a piece of evidence for the view that head movement is a syntactic, not a PF, operation (cf. Roberts (2010)). This is because PF operations generally affect adjacent elements, but the intervening FHs in ACs in Japanese are not adjacent, ranging over Voice, Aspect, IMP, etc.

(6) Voice < Aspect < ~~Neg~~ < Tense < ~~Speaker's Mood~~ < ~~Interpersonal Mood~~ < Sub
nagara 'while/with' [head feature movement] $\uparrow$