Prosodic Focus and Nominative/Accusative Alternation in Japanese

Synopsis: This study sheds light on the relationship between prosodic features of focus and a choice of case particles in Nominative/Accusative Alternation in Japanese (1). We conducted a perception experiment to examine prosodic effects on the use of the nominative particle *-ga* and the accusative *-o* as an object marker. The results demonstrate that the *-ga* object is sensitive to prosodic features of focus, in contrast to *-o*, and reveal the general tendency that a sentence with the *-ga* object is likely to get a narrow focus interpretation, compared to the one with the *-o* object.

Background: Shibatani (1975) points out that the acceptability of the *-ga* object becomes low when it is not adjacent to its predicate, while the acceptability of the *-o* object remains high (2). The research question of this study is why the *-ga* object needs to be adjacent to its predicate. As is well known, the particle *-ga* is related to focus (e.g., Kuno 1973, Heycock 1994), and the preverbal position is focused by default in Japanese due to its prosodic salience (e.g., Cinque 1993, Ishihara 2001). This indicates that the ideal position for the *-ga* object is preverbal. Drawing upon the effects of implicit prosody on a judgment of a written sentence (Fodor 2002), the lack of the (implicit) prosodic salience on the *-ga* object in (2) in silent reading could be the reason for the low acceptability. If so, assigning a plausible information structure, which is realized in prosody, to a sentence with the *-ga* object in (2) should improve the acceptability.

Analysis: We conducted a rating experiment with a 5-point scale (1: very unnatural, 5: very natural). 34 native speakers of Japanese participated in the experiment. We investigated sentences with the *-ga/-o* object that contain one Intervening Element (IE) between the object and its predicate (3). We manipulated the F0 of the IE in the recorded sentences, following the fact that focus in Japanese expands the F0 range of focused item (e.g., Pierrehumbert and Beckman 1988) and compresses that of post-focus items (e.g., Xu 1999). We made the F0 of the IE higher or lower with a 10Hz step to the extent that it does not sound artificial (Figure 1). The total of 132 stimuli were tested (47 target sentences with 85 fillers). Figure 2 shows that the accusative *-o* is always rated higher than the nominative *-ga*, irrespective of the pitch pattern of the IE, which is consistent with intuitive judgments given in previous studies. As expected, the findings of this study indicate that the *-ga* object is sensitive to the pitch pattern of the IE, *i.e.* the locus of focus. When the F0 of the IE is lower, the acceptability of the *-ga* object was improved. We argue that the *-ga* object in this case was treated as focus, since the low F0 of the following IE represents the post-focus compression. Furthermore, when the F0 of the IE is higher, the acceptability of the *-ga* object was also improved. In this case, we argue that the high F0 of the IE is interpreted as focus. This suggests that the *-ga* object does not need to be focused when there is a focused element in the preverbal position. The prosodic salience on the IE makes the object with *-ga* as part of background information. In contrast, Figure 2 shows that the accusative *-o* object does not prefer to be focused or have a focused IE. To summarize, we clarified that the adjustment of the F0 of the IE in order to fit the information structure of the sentence in question ameliorates the low acceptability of the *-ga* object. In addition, the results indicate that a sentence with the *-ga* object is likely to be interpreted that the sentence contains a narrow-focused element (focus on either the IE or the *-ga* object), while a sentence with the *-o* object does not require such narrow-focused elements.

(1) *Naomi-wa susi-**ga/o** tabe-tai.*
Naomi-Top sushi-Nom/Acc eat-want
'Naomi wants to eat sushi.'

(2) *Boku-ga susi-{?**ga/o**} kimi-to issyoni susiya-de tabe-tai.*
I-Nom sushi-Nom/Acc you-with together sushi.restaurant-at eat-want
'I want to eat sushi together with you at the sushi restaurant.' (Shibatani 1975)

(3) Target sentences (Topic-Obj-IE-Verb)

Accusative *-o* object

a. *Watasi-wa ramu-o dinaa-de nomi-tai.*
I-Top rum-Acc dinner-at drink-want
'I want to drink rum at dinner.'

b. *Watasi-wa zoo-o indo-de mi-tai.*
I-Top elephant-Acc India-at see-want
'I want to see elephants in India.'

Nominative *-ga* object

c. *Watasi-wa ramu-ga dinaa-de nomi-tai.*
I-Top rum-Nom dinner-at drink-want
'I want to drink rum at dinner.'

d. *Watasi-wa zoo-ga indo-de mi-tai.*
I-Top elephant-Nom India-at see-want
'I want to see elephants in India.'

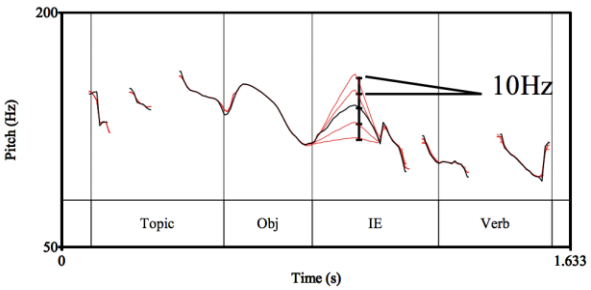

Figure 1: *Manipulating F0 of the IE in Praat*

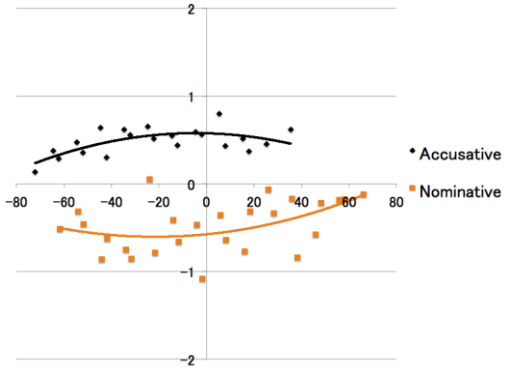

Figure 2: *Averaged ratings of target sentences standardized (formula: z=(x–μ)/σ) within each participant (x-axis: F0 difference = peak F0 of IE – peak F0 of the accusative/ nominative object, y-axis: standardized values of the ratings) and polynominal regression lines for the accusative -o and the nominative -ga*

Selected References

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