

Discontinuous quantifiers in English, Japanese, and Algonquian languages

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This paper provides a comparative study of discontinuous quantifiers (or floating quantifiers) in English, Japanese, and Algonquian languages, and introduces two varieties of discontinuous quantifiers: (i) subject-oriented adverbial quantifiers (*all* in English, numerals in Japanese), and (ii) discourse quantifiers (Algonquian). Traditionally, analyses of discontinuous quantifiers in the generative framework are classified into two schools: stranding view and adverbial view (Boskovic 2004, Miyagawa 2012, Sportiche 1991, for the former; Bobaljik 2003, Doetjes 1997, Nakanishi 2007, for the latter; Fitzpatrick 2006, Ko 2014 for a hybrid view). In the stranding view, an FQ is left behind by the subject at Spec, VoiceP, where the subject starts out. In the adverbial view, an FQ is based in the surface position as an adverbial that quantifies an event.

I propose that a quantifier *all* in English, and numerals in Japanese (followed by classifiers) are subject-oriented adverbials that require subject and an event predicate. Example (1) shows that *all* appears at a position where the subject is unlikely to strand the quantifier.

(1)a. The kids, he argues, **all** must study French. b. *The kids **all**, he argues, must study French.
In (1), *all* appears above T but below the subject. The stranding view wrongly predicts that there is a position between the subject and T for the quantifier to be stranded (Maling 1976).

The adverbial view also explains a restriction on distribution, that is, the discontinuous quantifier may not appear in the base position in passives. Examples in (2) are well accounted for by claiming that *all* is a subject-oriented adverbial, and thus it may not be licensed by the host NP in the object position. (The same restriction is observed in Japanese.)

(2)a. *The students were beaten **all** *t*. b. *What did you read **all** *t*.

In fact, object can also license a discontinuous quantifier in English as in (3), in which *all* modifies the higher object in ditransitives (note that [NP *all*] is not a constituent as in (1b)).

(3)a. John gave the kids **all** a candy. b. John gave the candy **all** to the kids.

A subject-oriented adverb selects two arguments: NP and an event (Rochette 1990). Provided that ditransitives involve a multi-layer predicate (4) (e.g., Pylkkanen 2008 for similar claims), the requirement of *all* is fulfilled by IO ('subject' in the lower event) and the lower event.

(4)[VoiceP Subj [Voice [VP IO [**all** [V1 [VP V2 DO]]]]]]

In comparison with English and Japanese, I further propose that discontinuous quantifiers in Algonquian languages as in (5) are base-generated in the surface position in the CP domain.

(5) *nswi gii-nsaa-n gigoony-an*.

three pst-kill-obv fish-obv 'He has caught three fish.' (Kathol & Rhodes 2000)

Discontinuous quantifiers are largely limited to pre-verbal position. Although there are various claims as to where exactly the discontinuous quantifiers are, past studies argues that these positions are in the CP domain: e.g., Focus/Topic (Dahlstrom 1991 for Plains Cree; Johnson & Rosen 2011 for Menominee, Kathol & Rhodes 2000, Lochbihler 2009 for Ojibwe, Reinholtz 1999 for Swampy Cree; cf. Bliss 2012,). Algonquian discontinuous expressions show the accessibility hierarchy in terms of discontinuity, as in *IO > DO > Sub*. For instance, subject can be the host NP in intransitives, but not (di)transitives. The analysis of Focus/Topic driven movement fails to capture this hierarchy. Instead, I demonstrate that this hierarchy is parallel to base-generated numerals in CP domain in Japanese. Further, I argue for the base-generation analysis, showing that the order of discontinuous demonstratives and quantifiers are free, while the order of them is fixed in DP domain. This suggest that the hierarchy is not syntactic (e.g.,

locality and intervention) and thus the movement analysis do not hold. Thus, I conclude that discontinuous expressions in languages in question are in fact two different derivations: Subject-oriented adverbials (English, Japanese), and discourse adverbials in CP domain (Algonquians).

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