

# Scale structures of numerical additive particles in Japanese

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## Abstract

Although *ato* and *moo* in (1) both express the meaning of ‘additivity’, they have different scale properties:

- (1) Taro-wa      biiru-o      {mou/ato}      i-ppai      nomu-daroo.  
Taro-TOP   beer-ACC   MOO/ATO   one-CL.glass   drink-will

Assertion: Taro will drink one glass of beer.

Presupposition: Taro has drunk at least one glass of beer.

In (1) *ato* and *moo* both trigger a ‘prior time’ presupposition (e.g. Greenberg 2009; Thomas 2009) that ‘Taro has drunk at least one glass of beer before the time of utterance.’ However, they are different in terms of scale structure. While (1) with *ato* implies that ‘the next glass will be the final one’, the sentence with *moo* does not have such an implication of finality.

The purpose of this paper is to investigate the meanings of numerical additive particles in Japanese and to argue that there are two types: endpoint-oriented and non-endpoint oriented. It will be shown that while *moo* sets a given degree as a standard and adds additional degrees to it (i.e., it is cumulative), *ato* measures the gap between a contextually determined endpoint/goal and a given degree (i.e., it is differential). This analysis naturally explains (i) why *ato* cannot normally appear with stative predicates and (ii) why *ato* can appear in both cumulative and non-cumulative contexts.

It has been argued that the distinction between endpoint and non-endpoint orientation plays an important role in clarifying the meanings of verbs (e.g. accomplishment verbs vs. other kinds of verbs; Verkuyl 1972; Tenny 1994; Krifka 1998; Rothstein 2004) and adjectives (e.g. absolute vs. relative gradable adjectives;

Kennedy and McNally 2005; Kennedy 2007). This paper shows that the endpoint/non-endpoint distinction plays an important role in the discourse/pragmatic dimension as well.

#### Selected references

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