

Scale structures of numerical additive particles in Japanese: Their interaction with eventuality and intensionality

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In this presentation, I will investigate the meanings and distribution patterns of the Japanese numerical additive particles *ato* and *moo*. I argue that although *ato* and *moo* both convey an additive meaning, they have different scalar properties. *Moo* is non-endpoint-oriented in that it simply adds a given degree to an existing/contextually salient degree, whereas *ato* is endpoint-oriented in that it signals that adding the given degree to an existing/contextually determined degree will reach an endpoint:

- (1) Taro-wa e-o [{moo / ato} 1-mai] kak-u-daroo.
Taro-TOP picture-ACC more.ADD / more.ADD 1-CL.sheet write-NON.PST-will
'Taro will draw one more picture.'
(with *ato*: Drawing one more picture will reach an endpoint.)

In terms of distribution, although both *ato* and *moo* can co-occur with eventive predicates, such as accomplishments, only *moo* can co-occur with a stative predicate, resulting in a comparative interpretation:

- (2) (A person said that the rod is 90 cm long, and the speaker replies.)
Kono sao-wa {moo / *ato} 10-senchi nagai.
this rod-TOP more.ADD / more.ADD 10-centimeter long-PRED-POLITE
'This rod is 10 centimeters longer.'

The paper shows that *ato*'s requirement of a future-oriented endpoint explains its incompatibility with stative predicates, supporting the idea that eventive predicates have an event argument, while stative predicates do not (e.g., Katz 2003, 2008; Kratzer 1995; Maienborn 2005).

One puzzling point is that if we embed *ato* in a conditional clause or a modal sentence, *ato* can co-occur with a stative predicate:

- (3) Moshi kono sao-ga {ato/moo} 30-senchi naga-katta-ra, ka-ttei-ta.
if this rod-NOM more.ADD 30-centimeter long-PST-COND buy-PERF-PST
'If this rod were 30 centimeters longer, I would have bought it.'
(with *ato*: Adding 30 centimeters to the existing length will reach an endpoint.)
- (4) {Ato / moo} 10-senchi nagai boo-ga hitsuyoo-da.
more.ADD / more.ADD 10-centimeter long stick-NOM necessary-PRED
'We need a stick 10 centimeters longer.'
(with *ato*: Adding 10 centimeters to the existing length will reach an endpoint.)

I argue that in these cases the requirement for an endpoint-oriented measurement in *ato* is satisfied through the intensional operators, demonstrating that the constraint on the scale structure can be met not only at the local level but also at the global level. This paper provides a new perspective on the semantic variation of additive particles in terms of eventuality and intensionality.