

2 The Conative Alternation

- I set aside here the syntactic analysis of the conative, e.g. as a lexical/grammatical mapping rule or as a systematic ambiguity (though see Beavers 2006:Ch.6 in favor of ambiguity).
- I focus instead on the semantics. Note that not all change-of-state verbs undergo the conative:

- (4) a. John bent/curved/polished/cleaned the razor.
b. *John bent/curved/polished/cleaned at the razor.

- Guerssel et al. (1985) and Laughren (1988) propose that only verbs that involve the agent moving some instrument towards the patient may undergo the conative:

- (5) a. **Direct Object Variant:** The AGENT manipulates some INSTRUMENT and moves it into contact with the PATIENT, effecting a change on the patient.
b. **Oblique Variant:** The AGENT manipulates some INSTRUMENT and *attempts* to move it into contact with the PATIENT in order to effect a change on the PATIENT.

- This rules out some achievements in the conative. For example, *break* does not necessarily involve an instrument or motion towards the patient (see also Gawron 1986, Beavers 2006):

- (6) a. John broke/cracked/shattered/split the vase by dropping it/through overuse.
b. *John cut/slashed/shot (at) the vase by dropping it on the floor.

- However, other achievements that fit this criterion still do not undergo the conative:

- (7) *John pierced/punctured/pricked/splintered at the tire.

- While the conditions Guerssel et al. lay out are indeed relevant, this data suggests that other factors above and beyond (5) are at play, in particular punctuality.

- Furthermore, (5) still doesn't capture the fact that some oblique variants entail affectedness:

- (8) a. Marie cut the rope. (an effect; cut at least a bit)
b. Marie cut at the rope. (no effect)

- (9) a. Marie ate her cake. (an effect; all eaten)
b. Marie ate at her cake. (an effect; at least partly eaten)

- I explain this contrast in terms of degrees of affectedness (following Beavers 2006), which I turn to next. I then define punctuality and show how this analysis of affectedness interacts with punctuality to rule out achievements in the conative.

3 Defining Affectedness - Two Types of Conatives

- We can define a hierarchy of **how affected** a participant is, following Hay et al. (1999).

- (10) a. Kim ate the apple. (**Quantized**: A specific, predicate-defined change occurs)
 b. Kim cut the apple. (**Non-quantized**: A change occurs, but it is not specific)
 c. Kim tapped the apple. (**Unspecified for an effect**: No necessary occurs)

- Hay et al. analyze this in terms of a **scale of change**, which I implement (Beavers 2002, 2006, in press) in the mereological event semantics of Krifka (1989, 1992, 1998).

(11) A dynamic predicate ϕ predicates over an event e , patient x , and scale s , which represents the successive states x undergoes in e and temporally “measures out” e .

- (12) a. John ate the sandwich. (s is scale of *volume/existence* of sandwich x in e)
 b. John wiped the table clean. (s is scale of *cleanliness* of the table x in e)
 c. John walked to the store. (s is scale of *position* (path) of figure x in e)

- The degree of affectedness reflects a hierarchy of how **specific** ϕ is about x 's progress on s .

– **Quantized** - x transitions between specific states \mathbf{b}_ϕ and \mathbf{g}_ϕ on s :

$$(13) \quad \lambda x \forall e \forall s. [\phi(x, e, s) \rightarrow [SOURCE(s, \mathbf{b}_\phi, x, e) \wedge GOAL(s, \mathbf{g}_\phi, x, e)]]$$

– **Non-quantized** - x 's initial and final states exist, but are not uniquely specified:

$$(14) \quad \lambda x \forall e \forall s. [\phi(x, e, s) \rightarrow \exists b, g. [SOURCE(s, b, x, e) \wedge GOAL(s, g, x, e)]]$$

– **Unspecified for an effect** - Neither (13) or (14) necessarily obtains for the patient.

- This hierarchy explains the two types of conatives (Broccias 2003):

- (15) a. Marie ate her cake. (*quantized change*)
 b. Marie ate at her cake. (*non-quantized change*)
 (16) a. Marie cut the rope. (*non-quantized change*)
 b. Marie cut at the rope. (*unspecified change*)

- (17) $\textit{quantized} \rightarrow \textit{non-quantized} \rightarrow \textit{unspecified}$
 $\textit{eat} : NP \Rightarrow \textit{at NP}$
 $\textit{cut} : NP \Rightarrow \textit{at NP}$

- We can redefine the conative as follows:

- (18) a. **Direct Object Variant**: The AGENT manipulates some INSTRUMENT and moves it towards the PATIENT, effecting a *change of degree* n on the PATIENT.
 b. **Oblique Variant**: The AGENT manipulates some INSTRUMENT and moves it towards the PATIENT, effecting a *change of degree* $n - 1$ on the PATIENT

- This scale of affectedness is also relevant for other alternations, and this rule may follow from more basic principles of oblique realization (Beavers 2005, 2006, to appear).

4 Durativity/Punctuality

- Intuitively, durativity/punctuality is about the length of the event (Engelberg 1999, 2000).
- We can test for durativity (of telic predicates) with the *in* test; punctual predicates have only the *after* reading with *in*, durative predicates also have durational readings (Kearns 2000):
 - (19) a. John will wipe the table clean in five minutes. (*after*/durational)
b. John will blink once in an hour. (*after*)
- Like telicity, predicates can be durative/punctual depending (among other reasons) on properties of the change undergone by the patient/theme:
 - (20) a. The settlers will cross the border in ten days. (*after*; trivial change)
b. The settlers will cross the desert in ten days. (*after*/durational; complex change)
- We can analyze this in the scalar model in terms of the **complexity** of the scale of change.
 - (21) a. Trivial transition = **simple scale (just two values)** = punctual event.
b. Complex transition = **complex scale (>two values)** = durative event.
- This event/scale relationship follows from the **homomorphic** relationship by which the scale of change *s* “measures out” *e* (Wechsler 2001, 2005, Beavers 2002, in press; see also Dowty 1991, Tenny 1992, Jackendoff 1996, Krifka 1998).
- Scalar complexity and its relation to durativity has independent motivation from looking at scale-denoting predicates and corresponding verbs (Kennedy and McNally 2005):
 - (22) a. Non-gradable (binary): *dead*, #*more dead*, *pregnant*, #*more pregnant*
b. Gradable (>binary): *clean*, *cleaner/more clean*, *polished*, *more polished*
 - (23) a. durative verb ↔ gradable adjective (*clean_V/clean_A*, *polish/polished*)
b. punctual verb ↔ non-gradable adjective (*die/dead*, *break/broken*)
- This correlation also explains a range of other facts, including constraints on resultatives and the interpretation of change-of-state predicates in different contexts (see Beavers 2006:Ch.4 for a summary of this approach).

5 The Interaction of Affectedness and Durativity/Punctuality

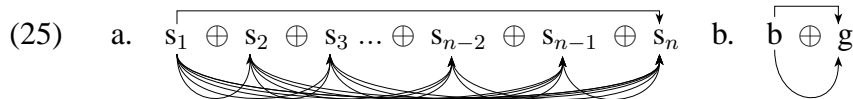
- We have the following properties defined in the scalar model:
 - Affectedness is defined by how specific ϕ is about what the endpoints of the s are.
 - Durativity arises from how complex s is.
- Cross-classifying affectedness by durativity, we regenerate many the traditional Vendler (1957) aspectual classes (except states), plus two rarely analyzed classes:

(24)

	<i>simple scale/punctual</i>	<i>complex scale/durative</i>
<i>quantized</i>	Achievements <i>shatter the vase</i>	Accomplishments <i>eat the apple</i>
<i>non-quantized</i>	N/A	“Activities” w/ continuous change <i>cut the apple, eat at the apple (slowly)</i>
<i>unspecified</i>	Semelfactives <i>tap the apple (once)</i>	Activities <i>cut at the apple (drunkenly)</i>

- In addition to the traditional Vendler classes, we also have two more:
 - Semelfactives (punctual but not entailing a change; Comrie 1976, Smith 1991, Beavers 2002, Rothstein 2004);
 - “Activities” with continuous change:
 - * Degree achievements such as *cool* (Dowty 1979, Hay et al. 1999);
 - * Verbs such as *slash* and *cut* that involve punctual changes that may be repeated.
- The conative alternation in (18) is a type-shifting operation that moves a predicate down the scale of affectedness (down the chart) but preserves durativity.
- Crucially, the spot below achievements is vacuous/a conceptual impossibility.

- These scales are simple and thus involve just two states; there is no *#more punctured*, *#more broken*, *#more pierced*, *#more splintered* in the relevant senses.
- Unlike complex scales, there is no potential for indeterminacy about the initial/final states: the patient always transitions between specific states b and g (upper arrows indicate quantized change, lower arrows indicate possible non-quantized changes).



- Therefore non-quantized non-gradable changes are at best semantically equivalent to quantized non-gradable changes.

- On these grounds the conative as defined in (18) is ruled out/blocked for achievements: it would produce an anomalous/vacuous semantic predicate type.
- This rules out *puncture*, *pierce*, etc., which were not ruled out by Guerssel et al.’s condition.
- No additional stipulations are needed above and beyond (18). The alternation is ruled out from the basic definitions of affectedness and punctuality.

6 Conclusion

- The conative alternations is conditioned by durativity: it does not apply to achievements.
- This follows from the interaction of independently motivated definitions of durativity and affectedness, without any additional stipulation on the conative rule itself.
- The cross-correlation of quantization and gradability has a significant effect in ruling out a certain class of predicates that would be produced if the conative applied to an achievement.
- This cross-correlation has the side-effect of also producing the Vendler classes again, an added bonus, but one that should be unexpected on this approach.
- Telicity has also long been known to be tied up in argument realization, especially in the determination of objecthood (Krifka 1989, 1992, 1998, Dowty 1991, Tenny 1992).
 - Patients/themes undergo changes (motion, changes-of-state, creation/destruction, etc.).
 - These factors play a role in the determination of objecthood and telicity.
- Durativity is quite similar in this respect, in many ways paralleling telicity:
 - Patients/themes undergo changes of different types (quantized, gradable, etc.).
 - The type of change play a role in the determination of objecthood and durativity.
- What links all of this together is the notion of a scale of change: this is implicated in affectedness, telicity, and durativity.

(26)		Correlation
	Lexical Aspect	conditions on scale determine properties of event
	Argument Realization	conditions on scale determine properties of patient/theme

- In both cases the relevant properties are defined on the scale, but have ramifications for both the patient and the event: conditions imposed on one may have ancillary effects on the other.
- This predicts a strong and necessary correlation between aspect and change of state, but our constraints on one need never make reference to the other.

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