

John Beavers, The University of Texas at Austin

University of Rochester, 10/18/2023

The lexical aspect and argument structure of atemporal uses of change-of-state verbs
(Joint work with Andrew Koontz-Garboden, University of Man

2 Background: A Typology of Atemporal Change

- A temporal change event _{ϵ} involves three entities (Krifka 1998; Hay et al. 1999; Beavers 2012):

- (4) a. A **patient** x that undergoes the change.
- b. A **scale** s of degrees to which x possesses some property (e.g. temperature, height, color), where x 's degree of

- **Kind readings:** Kind readings are characterized by a kind-type subject of the verbal predication:

- Thus it is not unreasonable that verbs could also place constraints on the axis of measurement (i.e. that it be temporal or spatial or something else).

- For example, in *The soup cooled*, different bits of the soup head from their initial temperatures to their final temperatures along the ordered scale, perhaps going up and down a bit in temperature, until all of it settles on its final degree, and the event is measured by this progress.
- In (19)_ε is mapped straightforwardly to time, the axis of measurement, via a temporal trace function τ . Were spatial change a variant of (19), we'd need to generalize (19) to relate patients and scales to states, with the axis of measurement derived via a spatial trace function .
- But otherwise the prediction is that properties derived fr

4.3 A Difference between Temporal and Spatial Change?

- Yet there are ways that spatial change may differ. Temporal *fall* requires the patient to be at all points between initial location x and final location $x - 500\text{ft}$ at some point on the time axis.

(25) The rock fell 500 feet down the mountain. (temporal)

- Conversely, spatial *fall* seem to admit a spatially instantaneous reading: in (26) on one side of the 40th parallel the mountain has height x and due to a sheer cliff on the other side is $x - 500\text{ft}$.

(26) The mountain fell 500 feet at the 40th parallel. (spatial)

- At no point in between did the mountain hold any height n for $x - 500\text{ft} < n < x\text{ft}$.
 - Thus spatial falling can happen at a point, but temporal falling is incremental, suggesting a difference in temporal and atemporal change. Deadjectival dimension and color verbs ahan(250.013(801Td[(i)3(n)-259.007(t)t)t
- b. [A wall has been painted dark blue above a picture raised
temporal or atemporal change, but rather in the pragmatic
#1 Beavers (2008) notes that in certain contexts gradable
objective reality, we just ignore them. I'm just suggesting

- In a sense this is the same point as above: the mereological complexity of the pea exists, but we mostly ignore it. It's just more obvious with the plane.

#3 Still further, as Dowty (1991) notes, real world factors o

5 Diathesis alternations

- Temporal change-of-state verbs in principle participate in a wide variety of argument alternations (see Levin 1993; see also Fillmore 1970; Dowty 1991; Ackerman and Moore 2001; Beavers 2010).

5.2 Other Alternations?

- Change-of-state verbs are known to show a wide range of other alternations, and some of the semantic effects of those alternations are known to depend on or effect aspectual properties.

#1 A classic is the locative alternation, where two separate complements vie for objecthood; whichever

References

- Ackerman, Farrell and John Moore. 2001. *Proto-Properties and Grammatical Encoding: A Correspondence Theory of Argument Selection*. Stanford: CSLI Publications.
- Anderson, Stephen R. 1971. On the role of deep structure in semantic interpretation. *Foundations of Language* 7:387–396.
- Beavers, John. 2008. Scalar complexity and the structure of events. In J. Dölling, T. Heyde-Zybatow, and M. Schäfer, eds., *Event Structures in Linguistic Form and Interpretation*, pages 245–265. Berlin: Mouton de Gruyter.
- Beavers, John. 2010. The structure of lexical meaning: Why semantics really matters. *Language* 86:821–864.
- Beavers, John. 2011. On affectedness. *Natural Language and Linguistic Theory* 29:335–370.
- Beavers, John. 2012. Lexical aspect and multiple incremental themes. In V. Demonte and L. McNalley, eds., *Telicity, Change, and State: A Cross-Categorial View of Event Structure*, pages 23–59. Oxford: Oxford University Press.
- Beavers, John. 2013. Aspectual classes and scales of change. *Linguistics* 54:681–706.
- Beavers, John and Andrew Koontz-Garboden. 2020. *The roots of verbal meaning*. Oxford University Press.
- Beavers, John and Cala Zubair. 2010. The interaction of transitivity features in the Sinhala involitive. In P. Brandt and M. Garcia, eds., *Transitivity: Form, Meaning, Acquisition, and Processing*, pages 69–92. Amsterdam: Benjamins.
- Beavers, John and Cala Zubair. 2013. Anticausatives in Sinhala: Involitivity and causer suppression. *Natural Language and Linguistic Theory* 31:1–46.
- Broccias, Cristiano. 2003. *The English Change Network: Focusing Changes into Schemas*. Berlin: Mouton de Gruyter.
- Carlson, Greg. 1977. *Reference to kinds in English*. Ph.D. thesis, University of Massachusetts, Amherst, Mass.
- Deo, Ashwini Sharad, Itamar Francez, and Andrew Koontz-Garboden. 2013. From change to value difference. In *Semantics and Linguistic Theory*, vol. 23, pages 97–115.
- Dowty, David. 1979. *Word meaning and Montague grammar*. Dordrecht: D. Reidel Publishing.
- Dowty, David. 1991. Thematic proto-roles and argument selection. *Language* 67:547–619.
- Dowty, David. 2000. 'The garden swarms with bees' and the fallacy of 'argument alternation'. In Y. Ravin and C. Leacock, eds., *Polysemy: Theoretical and Computational Approaches*, pages 111–128. Oxford, UK: Oxford University Press.
- Fillmore, Charles. 1970. The grammar of hitting and breaking. In R. Jacobs and P. Rosenbaum, eds., *Readings in English transformational grammar*. Waltham, MA: Ginn.
- Gawron, Mark. 2009. The lexical semantics of extent verbs. San Diego State University, January 31, 2009.
- Guerssel, Mohamed, Kenneth Hale, Mary Laughren, Beth Levin, and Josie White Eagle. 1985. A cross-linguistic study of transitivity alternations. In W. H. Eilfort, P. D. Kroeber, and K. L. Peterson, eds., *CLS 21, Part 2: Papers from the Parasession on Causatives and Agentivity*, pages 48–63. Chicago Linguistic Society.
- Gyarmathy, Zsofia. 2014. Scale coercion and the progressive form of achievements. Paper presented at Chronos 11, Pisa, Italy, June 16-18.
- Gyarmathy, Zsofia. 2015. *Achievements, Durativity, and Scales*

- pages 156–182. Oxford, UK: Oxford University Press.
- Koontz-Garboden, Andrew. 2010. The lexical semantics of derived statives. *Linguistics and Philosophy* 33:285–324.
- Krifka, Manfred. 1998. The origins of telicity. In S. Rothstein, ed., *Events and Grammar*, pages 197–235. Dordrecht: Kluwer.
- Levin, Beth. 1993. *English verb classes and alternations: A preliminary investigation*. Chicago, IL: University of Chicago Press.
- Maienborn, Claudia and Johanna Herdtfelder. 2017. Eventive versus stative causation: the case of German causal *von*-modifiers. *Linguistics and Philosophy* 40:279–320.
- Montague, Richard. 1973. The proper treatment of quantification in ordinary English. In K. Hintikka, J. Moravcsik, and P. Suppes, eds., *Approaches to Natural Language*, pages 221–242. Dordrecht: D. Reidel Publishing. References to reprinted version in Paul Portner and Barbara Partee (eds.) 2002. *Formal semantics: The essential readings*. Oxford: Blackwell. Pp. 17-34.
- Pylkkänen, Liina. 1999. Causation and external arguments. In *Papers from the UPenn/MIT Roundtable on the Lexicon, MITWPiL 35*, pages 161–183.
- Rappaport, Malka and Beth Levin. 1988. What to do with *-*roles. In W. Wilkins, ed., *Thematic Relations*, pages 7–36. San Diego, CA: Academic Press.
- Sweetser, Eve. 1997. Role and individual interpretations of change predicates. In J. Nuyts and E. Pederson, eds., *Language and conceptualization*, pages 116–136. Cambridge: Cambridge University Press.
- TennySan quaper5(d)-2.(7)5(-)-365.11]TJ-1.9091Tf87.95980Td9.8Lanrabhards. s