



Change of state verbs

State of the art

Paola Fritz-Huechante Antonio Machicao y Priemer
<https://hu.berlin/CoS>

DGfS 2022

23rd February 2022

Contents

- | | |
|------------------------------------|------------------------------|
| 1 Introduction | 5 Decomposition / Morphology |
| 2 Languages | 6 Telicity |
| 3 Scalarity, ambiguity / vagueness | 7 Syntax-semantics interface |
| 4 Implicatures | 8 Entailments |
| | 9 Organisation |

Introduction

- What are change of state (CoS) verbs?
- Generally:
Verbs denoting that the affected argument changes a property applied to it from one (degree of a) state to a different (degree of this) state
 - (1) a. The wind **dried** the clothes.
b. Maria **ate** the sandwich.
c. The soup **cooled** (down).

Different approaches to the composition of meaning and structure of CoS verbs:

- gradability / scalar analyses
 - (2) *dry* vs. *wet*
- telicity ambiguity
 - (3) *cool in X minutes* vs. *cool for X minutes*
- (non-)duration of changing “process”, e.g. durative vs. punctual
 - (4) *burn* vs. *burst*
- availability of implicature
 - (5) *Mary is not very late.* ?+> *Mary is late.*

Different approaches to the composition of meaning and structure of CoS verbs:

- ambiguity / vagueness
 - (6) *to be clean* (for a **restaurant table**) vs. *to be clean* (for a **surgical table**)
- morphosyntactic composition
 - (7) **flat**_{ADJ/ROOT} → **flatten**_{VERB}
- type of causer (viz. external vs. internal) and the entailment of a result state
 - (8) ***Peter** dried the clothes.* vs. ***The wind** dried the clothes.*
- causative vs. anticausative/inchoative alternants
 - (9) ***Peter** broke the vase.* vs. ***The vase** broke.*

- 1 Introduction
- 2 Languages
- 3 Scalarity, ambiguity / vagueness
- 4 Implicatures
- 5 Decomposition / Morphology
- 6 Telicity
- 7 Syntax-semantics interface
- 8 Entailments
- 9 Organisation

Languages

- CoS verbs have been commonly studied in English.
- This venue gives the space for **comparative** and **typological** studies:
 - English
 - German
 - Benue-Kwa family
 - Japanese
 - Bulgarian
 - Russian
 - Greek
 - Ulwa
 - Tongan
 - Romanian
 - French
 - ...

- 1 Introduction
- 2 Languages
- 3 Scalarity, ambiguity / vagueness
- 4 Implicatures
- 5 Decomposition / Morphology
- 6 Telicity
- 7 Syntax-semantics interface
- 8 Entailments
- 9 Organisation

Scalarity, ambiguity / vagueness

Hay et al. 1999; Kennedy 1999; Kennedy & McNally 2005a,b;
Beavers 2008; Kennedy & Levin 2008; McNally 2011; Solt 2015, 2018; a.o.

Central idea:

- Focus on the degree of a property (e.g. dryness) that an object (e.g. the clothes) undergoing a change of state has at the end of the event (e.g. of drying)

(10) The wind dried the clothes.

- Property is specified at the semantic core of the verb (e.g. *dry*_{ADJ}).
- To what extent this degree counts as manifesting this property.
- Distinction of scale structures encoded at the lexical level:
e.g. open (e.g. *lengthen*) vs. closed (e.g. *fill*) scale verbs

Scalarity, ambiguity / vagueness

Ongoing issues:

- Are measure functions specified in the lexical item (e.g. at the semantic core / root)?
- What do measure functions specify?
- Source of ambiguity of degree expressions (e.g. underspecification of dimension)
- Effects of multidimensionality on the interpretation of scale structure of the lexical items
- Type of affected entity and its role in the identification of a scale

TALKS: Solt; Beavers, Koontz-Garboden & Spicer; McNally; Tham; Pahonțu; Hessler, Weicker & Schulz

1 Introduction

2 Languages

3 Scalarity, ambiguity / vagueness

4 Implicatures

5 Decomposition / Morphology

6 Telicity

7 Syntax-semantics interface

8 Entailments

9 Organisation

Implicatures

Baker et al. 2009; Solt & Gotzner 2012;
Van Tiel et al. 2016; Gotzner et al. 2018a,b; a.o.

- What type of inferences do these degree expressions yield (e.g. negative strengthening)?
- Constraints of degree expressions to yield implicatures (e.g. only bounded items)
- What are the mechanisms underlying different inferences (e.g. scale structure)?
- Impact of the underlying scalar semantics of gradable items (e.g. polarity, boundedness, granularity) on implicature readings

TALKS: Alexandropoulou & Gotzner; Gotzner & Mazzarella

- 1 Introduction
- 2 Languages
- 3 Scalarity, ambiguity / vagueness
- 4 Implicatures
- 5 Decomposition / Morphology
- 6 Telicity
- 7 Syntax-semantics interface
- 8 Entailments
- 9 Organisation

Decomposition / Morphology

Dowty 1979; Rappaport Hovav & Levin 1998; Embick 2004; Ramchand 2008; Beavers et al. 2017; Beavers & Koontz-Garboden 2017, 2020; a.o.

Central idea:

- focus on the morphosyntactic composition of lexical items, i.e. roots, affixes, particles, etc.
 - (11) *red vs. redden vs. reddened*
- decomposition of lexical items into atomic units which form their meaning

Ongoing issues:

- Complexity of the semantics of atomic (e.g. roots) elements
- What do atomic elements denote / entail (e.g. only a state, a change of state)?
- Constraints and combinatorics potential of the atomic elements
- Role of operators, e.g. CAUSE and BECOME
- What constitute a basic (stative/eventive) predicate?
- Formation of complex predicates

TALKS: Beavers, Koontz-Garboden & Spicer; McNally; Bowler et al.; Brandt; Karagjosova; Maché; Schäfer et al.; Sugioka; Sioupi; Menzel

- 1 Introduction
- 2 Languages
- 3 Scalarity, ambiguity / vagueness
- 4 Implicatures
- 5 Decomposition / Morphology
- 6 Telicity
- 7 Syntax-semantics interface
- 8 Entailments
- 9 Organisation

Telicity

Tenny 1994; Krifka 1998; Hay et al. 1999; Kennedy & McNally 2005a; Ramchand 2008; Beavers 2008, 2012; Kennedy & Levin 2008; Rappaport Hovav 2014; McNally 2017; a.o.

Central idea:

- Telicity attributed to the properties of the affected entity
- Affected entity as incremental theme establishing a homomorphism from entity to event

(12) *paint a wall*

- Telicity also explained by scalar analyses
i.e. relation between bounds and telicity

Ongoing issues:

- What mediates telicity, e.g. root, template, standard of lexical items?
- role of incremental theme, e.g. quantized vs. non-quantized themes
- specifications of PPs
- (in)compatibility of degree modifiers

TALKS: Hessler, Weicker, & Schulz; Karagjosova; Kasher & Hacoen; Pahonțu

1 Introduction

2 Languages

3 Scalarity, ambiguity / vagueness

4 Implicatures

5 Decomposition / Morphology

6 Telicity

7 **Syntax-semantics interface**

8 Entailments

9 Organisation

Syntax-semantics interface

Dowty 1979; Haspelmath 1993; Schäfer 2008; Beavers 2008; Koontz-Garboden 2009; Tham 2013; Alexiadou et al. 2015; Martin 2020; Machicao y Priemer & Fritz-Huechante 2018, 2020; a.o.

Central ideas:

- CoS verbs' event structure commonly defined by a template (including a root, BECOME, CAUSE operators)
- Template defines: lexical aspect, number, or realization of arguments, derivational morphology
- Causer: external vs. internal

(13) a. **Peter** broke the vase.
b. **The flowers** bloomed.

- Causative vs. anticausative / inchoative structures
- Different head projections, e.g. *Voice* for agents, *v* for causers

Syntax-semantics interface

Ongoing issues:

- Idiosyncratic aspects of verb meaning
- How to better explain the (complex) event structure of CoS verbs, e.g. syntactic structure vs. lexicalist approach
- Specification or underspecification of thematic roles
- What can denote a change of state, e.g. root, adjective, noun, verb?
- Do causative and anticausative / inchoative structures have the same causative semantics?

TALKS: Beavers, Koontz-Garboden, & Spicer; Bowler et al.; McNally; Maché; Schäfer et al.; Martin & Schäfer; Sugioka; Brandt; Solt; Karagjosova; Sioupi

- 1 Introduction
- 2 Languages
- 3 Scalarity, ambiguity / vagueness
- 4 Implicatures
- 5 Decomposition / Morphology
- 6 Telicity
- 7 Syntax-semantics interface
- 8 Entailments
- 9 Organisation

Entailments

Koenig & Chief 2008; Demirdache & Martin 2015; Martin & Schäfer 2017; Martin 2019, 2020; Beavers & Lee 2020; Fritz-Huechante et al. 2020 a.o.

- Do caused CoS predicates entail (or implicate) a change of state?
- How to account for the (non-)entailment of a change of state?
- Impact of the subject referent, e.g. causers vs. agents
- Ambiguity of some CoS predicates w.r.t. to readings that focus on the event or the result state

TALKS: Schäfer et al.; Martin & Schäfer; Hessler, Weicker & Schulz; Maché; Alexandropoulou & Gotzner; Gotzner & Mazzarella

- 1 Introduction
- 2 Languages
- 3 Scalarity, ambiguity / vagueness
- 4 Implicatures
- 5 Decomposition / Morphology
- 6 Telicity
- 7 Syntax-semantics interface
- 8 Entailments
- 9 Organisation

Organisation

- **CoS program**, changes, abstracts, slides, and videos:
 - <https://www.linguistik.hu-berlin.de/de/staff/amyp/CoS/program>
 - shorter → <https://hu.berlin/CoS> (under **Program**)
- There, you will find: **DGfS program**, conference booklet, code of conduct, plenary lectures, links for the venue, contact addresses.
- Please send us you **slides** before or after your presentation.
- **Proceedings** of selected talks as a special issue on *Change of state expressions* in *Glossa*

References I

- Alexiadou, Artemis, Elena Anagnostopoulou & Florian Schäfer. 2015. *External arguments in transitivity alternations: A layering approach*. Oxford: Oxford University Press.
- Baker, Rachel, Ryan Doran, Yaron McNabb, Meredith Larson & Gregory Ward. 2009. On the non-unified nature of scalar implicature: An empirical investigation. *International Review of Pragmatics* 1. 1–38.
- Beavers, John. 2008. Scalar complexity and the structure of events. In Johannes Dölling & Tatjana Heyde-Zybatow (eds.), *Event structures in linguistic form and interpretation*, 245–265. Berlin: Mouton de Gruyter. doi:10.1515/9783110925449.245.
- Beavers, John. 2012. Lexical aspect and multiple incremental themes. In Violeta Demonte & Louise McNally (eds.), *Telicity, change, and state: A cross-categorical view of event structure*, 23–59. Oxford: Oxford University Press.
- Beavers, John, Michael Everdell, Kyle Jerro, Henri Kauhanen, Andrew Kootz-Garboden, Elise LeBovidge & Stephen Nichols. 2017. Two types of states: A cross-linguistic study of change-of-state verb roots. In Patrick Farrell (ed.), *Proceedings of the Linguistic Society of America LSA*, 1–15. Austin, Texas: Berkeley Linguistics Society. doi:10.3765/plsa.v2i0.4094.
- Beavers, John & Andrew Kootz-Garboden. 2017. The semantic contribution of idiosyncratic roots to ditransitive verbs. In Aaron Kaplan, Abby Kaplan, Miranda K. McCarvel & Edward J. Rubin (eds.), *Proceedings of the 34th West Coast Conference on Formal Linguistics*, 70–80. Somerville, MA: Cascadilla Proceedings Project.
- Beavers, John & Andrew Kootz-Garboden. 2020. *The roots of verbal meaning*. Oxford: Oxford University Press.
- Beavers, John & Juwon Lee. 2020. Intentionality, scalar change, and non-culmination in Korean caused change-of-state predicates. *Linguistics* 58(5). 1233–1283. doi:10.1515/ling-2020-0007.
- Demirdache, Hamida & Fabienne Martin. 2015. Agent control over non-culminating events. In Elisa Barrajoñ, José Luis Cifuentes & Susana Rodríguez (eds.), *Verb classes and aspect*, 185–217. Amsterdam: John Benjamins. doi:10.1075/ivitra.9.09dem.
- Dowty, David R. 1979. *Word meaning and Montague grammar: The semantics of verbs and times in generative semantics and in Montague's PTQ*. Dordrecht: Kluwer. doi:10.1007/978-94-009-9473-7.
- Embick, David. 2004. On the structure of resultative participles in English. *Linguistic Inquiry* 35(3). 355–392.
- Fritz-Huechante, Paola, Elisabeth Verhoeven & Julian A. Rott. 2020. Agentivity and non-culminating causation in the psych domain: Cross-linguistic evidence from Spanish and Korean. *Glossa: A Journal of General Linguistics* 5(1). 1–35. <http://doi.org/10.5334/gjgl.896>.
- Gotzner, Nicole, Stephanie Solt & Anton Benz. 2018a. Adjectival scales and three types of implicature. In Sireemas Maspong, Brynhildur Stefánsdóttir, Katherine Blake & Forrest Davis (eds.), *Proceedings of Semantics and Linguistic Theories (SALT)*, 409–432. Ithaca, NY: CLC Publications. doi:10.3765/salt.v28i0.4445.
- Gotzner, Nicole, Stephanie Solt & Anton Benz. 2018b. Scalar diversity, negative strengthening, and adjectival semantics. *Frontiers in Psychology* 9. 1659. doi:10.3389/fpsyg.2018.01659.
- Haspelmath, Martin. 1993. More on the typology of inchoative/causative verb alternations. In Bernard Comrie & Maria Polinsky (eds.), *Causatives and transitivity* (Studies in Language Companion Series 23), 87–120. Amsterdam: John Benjamins.
- Hay, Jennifer, Christopher Kennedy & Beth Levin. 1999. Scale structure underlies telicity in degree achievements. In Tanya Matthews & Devon Strolovitch (eds.), *Proceedings of Semantics and Linguistic Theories (SALT)*, 127–144. Ithaca, NY: CLC Publications. doi:10.3765/salt.v9i0.2833.
- Kennedy, Christopher. 1999. *Projecting the adjective: The syntax and semantics of gradability and comparison*. University of California Santa Cruz Dissertation. <http://semantics.uchicago.edu/kennedy/docs/ck-thesis.pdf>.

References II

- Kennedy, Christopher & Beth Levin. 2008. Measure of change: The adjectival core of degree achievements. In Louise McNally & Christopher Kennedy (eds.), *Adjectives and adverbs: Syntax, semantics and discourse*, 156–182. Oxford: Oxford University Press.
- Kennedy, Christopher & Louise McNally. 2005a. Scale structure, degree modification, and the semantics of gradable predicates. *Language* 81(2). 345–381. doi:10.1353/lan.2005.0071.
- Kennedy, Christopher & Louise McNally. 2005b. The syntax and semantics of multiple degree modification in English. In Stefan Müller (ed.), *Proceedings of the 12th international conference on head-driven phrase structure grammar, department of informatics, university of lisbon*, 178–191. Stanford, CA: CSLI Publications.
- Koenig, Jean-Pierre & Lian-Cheng Chief. 2008. Scalarity and state-changes in Mandarin (and other languages). In Olivier Bonami & Cabredo Hofherr (eds.), *Empirical issues in syntax and semantics*, vol. 7, 241–262. Paris: Université Paris 7. <http://www.cssp.cnrs.fr/eiss7/koenig-chief-eiss7.pdf>. Proceedings of the Colloque de Syntaxe et Sémantique à Paris (CSSP) from 4-6 October 2007 at the Université Paris 7.
- Koontz-Garboden, Andrew. 2009. Anticausativization. *Natural Language and Linguistic Theory* 27. 77–138.
- Krifka, Manfred. 1998. The origins of telicity. In Susan Rothstein (ed.), *Events and grammar*, 197–235. Dordrecht: Kluwer. doi:10.1515/9783110877335-005.
- Machicao y Priemer, Antonio & Paola Fritz-Huechante. 2018. Korean and Spanish psych-verbs: Interaction of case, theta-roles, linearization, and event structure in HPSG. In Stefan Müller & Frank Richter (eds.), *The 25th International Conference on Head-Driven Phrase Structure Grammar*, 155–175. University of Tokyo: CSLI Publications. <http://csli-publications.stanford.edu/HPSG/2018>.
- Machicao y Priemer, Antonio & Paola Fritz-Huechante. 2020. Boundaries at play: Se in the Spanish psych domain. *Linguistic Investigations* 43(1). 62–94. <https://www.jbe-platform.com/content/journals/10.1075/li.00040.mac>.
- Martin, Fabienne. 2019. Non-culminating accomplishments. *Language and Linguistics Compass* 13(8). e12346. doi:10.1111/lnc3.12346.
- Martin, Fabienne. 2020. Aspectual differences between agentive and non-agentive uses of causative predicates. In Elitzur A. Bar-Asher Siegal & Nora Boneh (eds.), *Perspectives on causation: Selected papers from the Jerusalem 2017 workshop*, 257–294. Cham: Springer. doi:10.1007/978-3-030-34308-8.
- Martin, Fabienne & Florian Schäfer. 2017. Sublexical modality in defeasible causative verbs. In Ana Arregui, María Rivero & Andrés Salanova (eds.), *Modality across syntactic categories*, 87–108. Oxford: Oxford University Press. doi:10.1093/acprof:oso/9780198718208.003.0006.
- McNally, Louise. 2011. The relative role of property type and scale structure in explaining the behavior of gradable adjectives. In Rick Nouwen, Robert van Rooij, Uli Sauerland & Hans-Christian Schmitz (eds.), *International Workshop on Vagueness in Communication: Vagueness in Communication (VIC 2009)*, 151–168. Berlin: Springer. doi:10.1007/978-3-642-18446-8_9.
- McNally, Louise. 2017. On the scalar properties and telicity of degree achievements. In Olga Fernández-Soriano, Elena Castroviejo & Isabel Pérez-Jiménez (eds.), *Boundaries, phases and interfaces: Case studies in honor of Violeta Demonte*, 174–192. Amsterdam, Philadelphia: John Benjamins.
- Ramchand, Gillian. 2008. *Verb meaning and the lexicon: A first-phase syntax*. Cambridge: Cambridge University Press.
- Rappaport Hovav, Malka. 2014. Building scalar changes. In Artemis Alexiadou, Hagit Borer & Florian Schäfer (eds.), *The syntax of roots and the roots of syntax*, 259–281. Oxford: Oxford University Press. doi:10.1093/acprof:oso/9780199665266.003.0012.
- Rappaport Hovav, Malka & Beth Levin. 1998. Building verb meanings. In Miriam Butt & Wilhelm Geuder (eds.), *The projection of arguments: Lexical and compositional factors*, 97–134. Stanford, CA: CSLI Publications.
- Schäfer, Florian. 2008. *The syntax of (anti-)causatives: External arguments in change-of-state contexts*. Amsterdam: John Benjamins.

References III

- Solt, Stephanie. 2015. Vagueness and imprecision: Empirical foundations. *Annual Review of Linguistics* 1(1). 107–127. doi:10.1146/annurev-linguist-030514-125150.
- Solt, Stephanie. 2018. Multidimensionality, subjectivity and scales: Experimental evidence. In Elena Castroviejo, Louise McNally & Galit Weidman Sassoon (eds.), *The semantics of gradability, vagueness, and scale structure: Experimental perspectives*, 59–91. Cham: Springer.
- Solt, Stephanie & Nicole Gotzner. 2012. Experimenting with degree. In Anca Chereches (ed.), *Proceedings of the 22nd Semantics and Linguistic Theory Conference SALT*, 353–364. Chicago, Illinois: CLC Publications.
- Tenny, Carol. 1994. *Aspectual roles and the syntax-semantics interface*. Dordrecht: Kluwer.
- Tham, Shiao Wei. 2013. Change of state verbs and result state adjectives in Mandarin Chinese. *Journal of Linguistics* 49(3). 647–701. doi:10.1017/S002226713000261.
- Van Tiel, Bob, Emiel Van Miltenburg, Natalia Zevakhina & Bart Geurts. 2016. Scalar diversity. *Journal of Semantics* 33(1). 137–175. doi:10.1093/jos/ffu017.