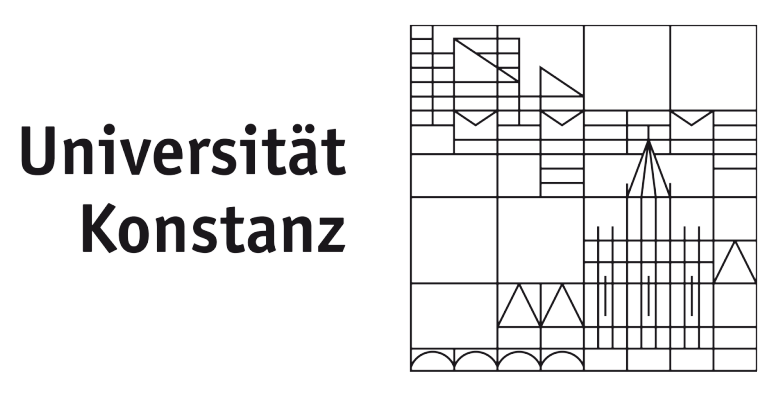


From State to State

On the typology of states and the causative-inchoative alternation

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Background

Words denoting **causative** (*He broke the window*) and **inchoative** change of state events (*The window broke*) are often morphologically related to words denoting the associated **state predicates** (*The window is broken*), though the relationship differs for different kinds of states.

For change of state events, there is no single **direction of derivation** from causative to inchoative (e.g. Italian *sciogliere* 'melt TR.' → *sciogliersi* 'melt INTR.') or inchoative to causative (e.g. Turkish *öldürmek* 'kill' ← *ölmek* 'die'). Typological approaches argue that the direction of derivation is sensitive to the **lexical semantic nature of verbs**, namely to whether the kind of event denoted by the verbs tends to occur spontaneously (e.g. *freeze*, *melt*) or is more likely to be instigated by a causer (e.g. *break*, *close*) (cf. Haspelmath 1993; Levin & Rappaport Hovav 1995; Comrie 2006).

In addition to how the change of state event is brought about, spontaneously or not, another factor that has been suggested to be responsible for such an **asymmetry** in the formal encoding of the causative-inchoative alternation is the **nature of the state underlying the change of state** (Koontz-Garboden 2006).

Dixon (1982) shows that there is a distinction between **property concept states** (PCS) and **result states** (RS). The latter entail some prior event giving rise to the state, whereas the former do not presuppose such an event.

It has recently been suggested that the semantic difference between the two kinds of states tends to be reflected morphologically: **PCS** are **morphologically simple as state predicates** (e.g. *loosen* ← *loose*, *widen* ← *wide*) and **RS** are **morphologically simple as change of state events** (e.g. *break* → *broken*, *burn* → *burnt*) (cf. Koontz-Garboden & Levin 2004; Koontz-Garboden 2005, 2006).

In this preliminary investigation of the relationship between change of state events and state predicates, we took **34 triplets** of causative and inchoative verbs and their associated states, such as:

The man open -ed the door.	The door open -ed.	The door is open .
The woman tore the dress.	The dress tore .	The dress is torn .
The woman loosen -ed the knot.	The knot loosen -ed.	The knot is loose .

In most cases, human causers were chosen as the subject for transitive sentences. Inanimate tangible entities serve as the object of the transitive sentences and the subject of the intransitive and stative sentences. An analysis was carried out across 5 languages, two Germanic (**English**, **German**), one Romance (**Italian**), one Semitic (**Maltese**) and one Altaic (**Turkish**) by means of a sentence completion task filled in by a number of native speakers for each language.

Types of state predicates

➤ Do languages show a preference for deriving states from change of state events (i.e. for encoding states as RS) or the other way round (i.e. for encoding states as PCS)?
And is it always the case that there is a direction of derivation?



All 5 languages exhibit a tendency for deriving state predicates from causative/inchoative verbs, though to different extents.

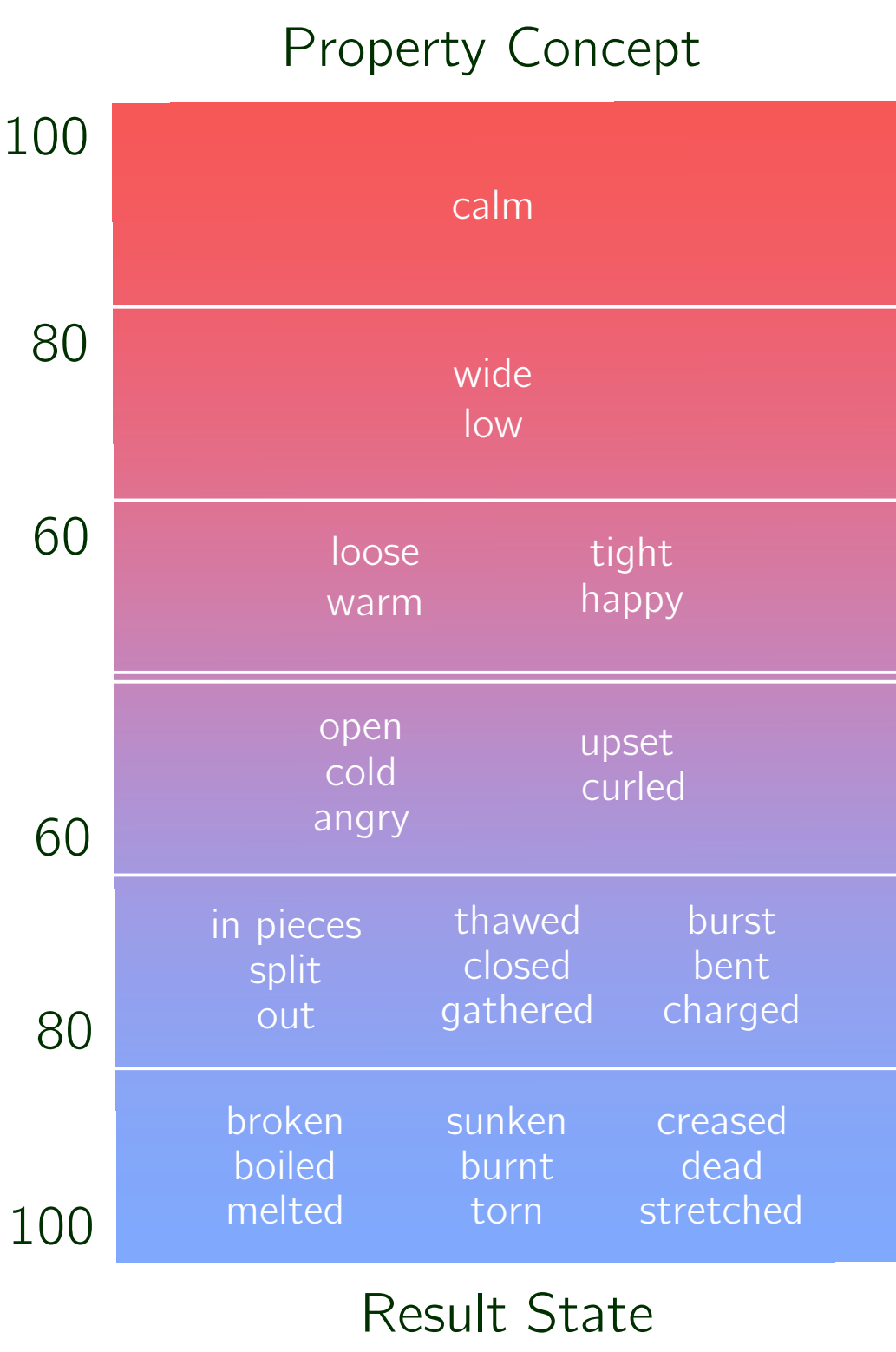
Maltese and **Turkish** show a high propensity for RS.

The same holds for **German** and **Italian**, though they tend to have a larger number of PCS (i.e. of verbs derived from states) in comparison to Maltese and Turkish.

English shows a slight preference for RS (*close* → *closed*). However, there is a remarkable amount of PCS (*widen* ← *wide*).

- For each language there are cases where the direction of derivation is unclear because:
- the same form is used (*The door* open-ed = *The door* is open)
 - the items are equally complex (Turkish *çözdür/çözül* 'thaw TR./INTR.' = *çözük* 'thawed')
 - the associated adjective is (synchronically) not related morphologically to the verbs (*The prices* rose = *The prices* are high; *The beer* cool-ed down = *The beer* is cold).

Continuum of state types



➤ Do the state predicates of individual notions tend to be encoded as PCS or RS across languages?

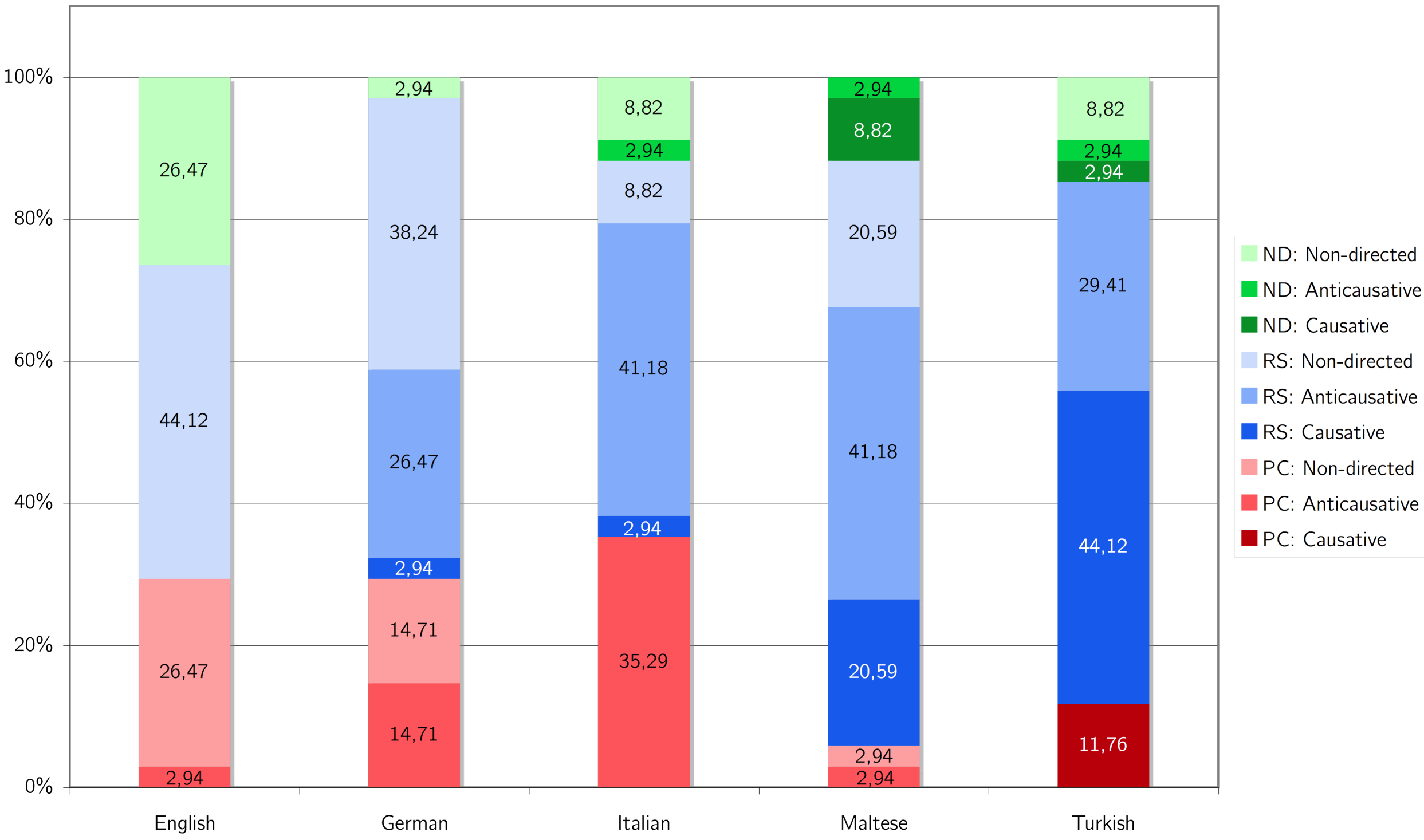
Among the 5 languages there is a clear tendency for some state predicates to be lexicalized as PCS (CALM, WIDE) and for others as RS (BROKEN, CLOSED). However, most of the notions tend to be deverbal, with the change of **state events** being **morphologically simpler** than the state predicates.

For three notions (DRY, HIGH, AWAKE) there was no cross-linguistic tendency for having the state as either PCS or RS.

For one notion in particular (LOW), the direction of derivation is unclear, as the verbs and the state predicate have different roots as a base (*The taxes* decreased = *The taxes* are low).

Correlation between states and verbs

➤ Does the nature of the underlying state indeed have an impact on the direction of derivation among causative-inchoative verb pairs (as suggested by Koontz-Garboden 2006)?



English no direction of derivation is observed in causative and inchoative verbs both when associated to PCS (*wide* → *widen* = *widen*) and RS (*broken* ← *break* = *break*)

German when the state is PC there is equal chance that the inchoative is derived (OPEN *offen* → *öffnen* → *sich öffnen*) or that there is no direction of derivation (DRY *trocken* → *trocknen* = *trocknen*). For RS, the verbs are either non-directed (BROKEN *zerbrochen* ← *zerbrechen* = *zerbrechen*) or the inchoative is derived (CLOSED *geschlossen* ← *schließen* → *sich schließen*)

Italian the direction of derivation among verbs is anticausative for both PCS (LOW *basso* → *abbassare* → *abbassarsi*) and RS (TORN *strappato* ← *strappare* → *strapparsi*)

Maltese for both PCS and RS, causative, anticausative and non-directed alternations are all possible, with a slight preference for anticausatives when the state is resultative (CREASED *mkemmex* ← *kemmex* → *tkemmex*)

Turkish PCS are always causative (DRY *kuru* → *kurut* ← *kuru*). RS may be either anticausative (BENT *bükük* ← *bük* → *bükül*) or causative (ANGRY *kızgın* ← *kızdır* → *kız*)

Conclusion

This preliminary investigation of change of state events and their associated state predicates suggests three main findings:

- all 5 languages tend to **derive the state predicates** from their associated change of state events
- most of the stative notions in question **fall along a continuum** with regard to the two types of state predicates, with some notions being typically encoded as property concept states and others as result states
- the data suggest that there is **no direct correlation** between the type of state predicate, whether it is a property concept or a result state, and the direction of derivation in causative-inchoative verb pairs, neither within nor across these 5 languages.

In order to be able to draw generalizations about the relationship between state predicates and the causative-inchoative alternation, further research is to be carried out (i) on a wider range of change of state events and their associated state predicates (ii) among more languages from different families and geographical areas.

References

Comrie, Bernard. 2006. Transitivity pairs, markedness, and diachronic stability. *Linguistics* 44-2. 303-318.
Dixon, Robert M.W. 1982. *Where have all the adjectives gone? and other essays in semantics and syntax*. The Hague: Mouton.
Haspelmath, Martin. 1993. More on the typology of inchoative/causative verb alternations. In Bernard Comrie & Maria Polinsky (eds.), *Causatives and Transitives*, 87-120. Amsterdam: Benjamins.
Koontz-Garboden, Andrew. 2005. On the typology of state/change of state alternations. In *Yearbook of Morphology 2005*, 83-117.
Koontz-Garboden, Andrew. 2006. The states in changes of state. In *Proceedings of the Berkeley Linguistics Society* 32. Berkeley, CA.
Koontz-Garboden, Andrew & Beth Levin. 2005. The morphological typology of change of state event encoding. In Geert Booij, Emiliano Guevara, Angela Ralli, Salvatore Sgroi & Sergio Scalise (eds.), *Morphology and linguistic typology: On-line Proceedings of the 4th Mediterranean Morphology Meeting*, 185-194. Bologna, Italy: Università degli Studi di Bologna.
Levin, Beth & Malka Rappaport Hovav. 1995. *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge: MIT Press.

Acknowledgements

We would like to thank Frans Plank for the inspiration and helpful discussions. We are also grateful to Alessia Cimini, Chiara Gianollo, Brian Leahy, Chris Lucas, Tianhua Luo, Georgij Nowossjelow, Stefano Quaglia and all the native speaker informants for their help. Spagnol is supported by the Zukunftscolleg, University of Konstanz, Bamyacı by the Bundesministerium für Bildung und Forschung (BMBF) & Schönhuber by the Research Initiative for Computational Analysis of Linguistic Development (CALD), University of Konstanz.

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