

The fine structure of (anti-)causatives

1. In this paper, we investigate causatives, anticausatives and passives focusing on the distribution of PPs related to external arguments (agent, causer, instrument, causing event) and the restrictions on alternating verbs across languages. We present evidence against detransitivization analyses and in favor of a decomposition approach towards the causative/anticausative alternation.

2. Chierchia (1989/2004), Levin & Rappaport-Hovav (L&R-H 1995), Reinhart (2000/2002) argue that anticausatives and causatives have a lexical-semantic representation including a ‘cause’ component. The causer argument in anticausatives undergoes ‘reduction’ in the lexicon, and is therefore not projected in syntax (*detransitivization*). Reduction is allowed with verbs that select for an unspecified causer external argument, which can be realized as an agent, instrument or causer. Verbs that require either an agent or an instrument can form passives (where an implicit subject is present) but not anticausatives. This approach faces a number of problems: (i) It does not capture the morphological variation found with this alternation, since apart from languages that mark the intransitive form with special morphology, others mark the transitive, both forms or no form at all (Haspelmath 1993). (ii) It doesn't account for change of state unaccusatives (e.g. *blossom*) that lack a causative counterpart (**John blossomed the roses*). (iii) It predicts that PPs denoting agents, instruments, causers, causing events are licit in passives (which contain an implicit argument) and illicit in anticausatives (which do not contain one). We argue that this is incorrect. Causers/causing events (but not agents) are licensed in English and German anticausatives: they are introduced by the preposition *from* in English (1) and *durch* in German (2). In Greek, causers/causing events are licit in anticausatives (3b) and illicit in passives (3a). The fact that passives in Greek can only be modified by agents and instruments suggests that the implicit argument in Greek passives is an agent and not an unspecified causer. (iv) It has nothing to say about the variation with the verbs showing the alternation in different languages: e.g. *destroy* and *kill* form anticausatives in Greek but not in English and German.

3. Building on Kratzer (2003), we adopt a syntactic decomposition of change of state verbs into a Voice and a Cause component: [Voice [CAUS [ROOT]]]. We assume the existence of different types of Voice. Voice-Transitive introduces overt external arguments, while Voice-Passive introduces implicit external arguments. Both Voice heads can be [\pm Agentive]. [+Agentive] Voice heads license agents and instruments, while [-Agentive] Voice heads license (direct) Causers (along the lines of Pyllkänen 2002). CAUS introduces a causal relation between a causing event and the resultant state denoted by the root+theme. In anticausatives, causer PPs are licensed by CAUS (*apo/me*-PPs in Greek; *from*-PPs in English; *durch*-PPs in German). Roots fall into different classes depending on their Encyclopedic semantics: $\sqrt{\text{internally caused}}$ (*blossom*), $\sqrt{\text{externally caused}}$ (*destroy*) (‘the cause is linked to properties inherent/external to the argument undergoing change’; L&R-H 1995), $\sqrt{\text{agentive}}$ (*murder*), $\sqrt{\text{cause unspecified}}$ (*break*). All root types combine with CAUS, but their individual encyclopedic meaning restricts their possibility to show up in the context of the various Voice heads. Crosslinguistic variation in passives and anticausatives depends on properties of Voice and its combinations with CAUS and various types of roots. All anticausatives contain CAUS; whether or not they also contain Voice is determined by the nature of roots, and is subject to crosslinguistic variation. *Internally caused roots* are incompatible with a Voice head. Nevertheless these roots combine with CAUS as witnessed by their compatibility with Causer-PPs (4). We argue that internally caused roots are incompatible with a direct causer, as a Voice head would introduce it, but are compatible with Causer PPs licensed by CAUS, if these can be understood as indirect Causers (see Bittner 1999). *Externally caused roots* require an external argument and hence the presence of Voice. In the context of *agentive roots* this Voice head must also be [+agentive]. English and German Voice-PASS can be [\pm agentive], and the implicit external argument can be an agent, instrument or causer. Greek Voice-PASS can only be [+agentive] and, therefore, the implicit argument can only be an agent or instrument, as shown by the ungrammaticality of causers/causing events in (3a). The special status of Greek allowing “externally caused anticausatives” (with *kill* and *destroy*) will be argued to be related to the morphological variation with Greek anticausatives (\pm active morphology) and the above restriction on the Greek passive: the crucial observation is that Greek allows such anticausatives only if they select the non-active paradigm, which has been explained as a reflex of a particular type of Voice head (Alexiadou & Anagnostopoulou 2004, Embick 2004). Finally, *unspecified roots* can but do not have to show up in the context of a Voice head and therefore alternate freely in all languages.

Examples:

- (1) The window cracked/broke from the pressure/*from John /*by John
- (2) Die Vase zerbrach durch ein Erdbeben /*durch Peter/*von Peter
The vase broke through an earthquake/*through Peter/*by Peter
- (3) a. I porta anixtike apo ton filaka / *apo ton aera / *me tin thiela / me to klidi
The door was opened-non-act by the guard / *by the wind / *by the storm / with the key
b. I porta anikse *apo ton filaka / apo ton aera / me tin thiela / me to klidi
The door opened-act *by the guard / by the wind / by the storm / with the key
- (4) a. The flowers wilted from the heat
b. Der Baumstamm verrottete durch die Feuchtigkeit
The tree trunk rotted through the humidity
c. I Maria adinatise me ti gimnastiki
Mary became-thin-act with sport

References:

- Alexiadou, A. & E. Anagnostopoulou (2004). Voice morphology in the causative-inchoative Alternation: evidence for a non unified structural analysis of unaccusatives. In A. Alexiadou, E. Anagnostopoulou, and M. Everaert (eds.) *The Unaccusativity puzzle*. Oxford University Press.
- Bittner, M. (1999). Concealed causatives. *Natural Language Semantics* 7: 1-78.
- Chierchia, G. (1989). *A semantics for unaccusatives and its syntactic consequences*. Ms., Cornell University, Ithaca, N.Y.
- Chierchia, G. (2004). A semantics for unaccusatives and its syntactic consequences. In A. Alexiadou, E. Anagnostopoulou, and M. Everaert (eds.) *The Unaccusativity Puzzle. Explorations at the Syntax-Lexicon Interface*. Oxford, Oxford University Press.
- Embick, D. (2004). 'Unaccusative Syntax and Verbal Alternations'. In A. Alexiadou, E. Anagnostopoulou, and M. Everaert (eds.) *The Unaccusativity puzzle*. Oxford University Press.
- Haspelmath, M. (1993). More on the typology of inchoative/causative verb alternations. In Comrie B. and M. Polinsky (eds.) *Causatives and Transitivity*. Amsterdam: John Benjamins
- Kratzer, A. (2003). Building Resultatives. To appear in Maienborn C. and A. Wöllstein-Leisten (eds.) *Event Arguments in Syntax, Semantics, and Discourse*. Tübingen: Niemeyer.
- Levin, B. and M. Rappaport Hovav (1995). *Unaccusativity. At the Syntax-Lexical Semantics Interface*. Cambridge/Mass., MIT Press.
- Pylkkänen, L. (2002). *Introducing Arguments*. Ph.D. Diss., Department of Linguistics. Cambridge/Mass., MIT.
- Reinhart, T. (2000). *The Theta System: Syntactic realization of verbal concepts*, OTS Working papers, 00.0/TL (available also at <http://www.let.uu.nl/~tanya.reinhart>)
- Reinhart (2002). *The Theta System – An Overview*. In *Theoretical Linguistics*: 229-290.