

Anticausatives in transitive guise

A. In many languages, verbs undergoing the causative-anticausative alternation fall into two morphological classes. For example, French and Greek have unmarked anticausatives (1b, 3b) which are morphologically identical to their corresponding causatives (1a, 3a), and they have marked anticausatives (2b, 4b) which are set aside from their corresponding causatives by a special morphological device. While French uses a reflexive clitic (**SE**) as anticausative marker, Greek uses a verbal non-active affix (**NACT**). We provide a new argument that anticausative morphology (**AM**) must be dissociated from anticausative/inchoative semantics and, instead, reflects syntactic properties (Embick 2004, Schäfer 2008, Alexiadou et al. 2015). Lexicalist theories (e.g. Grimshaw 1982, Reinhart 2002) that treat AM as the reflex of the application of a lexical operation of decausativization fail to account for 'transitive anticausatives' (**TrACs**).

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| (1) a. | Ana brûle la maison.
Ana burns the house | b. | La maison (*se) brûle.
the house SE burns | (unmarked) |
| (2) a. | Pierre ouvre la porte.
Peter opens the door | b. | La porte *(s') ouvre.
the door SE opens | (marked) |
| (3) a. | O Janis adiase ti sakula.
the John emptied.ACT the bag | b. | I sakula adiase.
the bag emptied.ACT | (unmarked) |
| (4) a. | O Janis ekapse ti supa.
the John burnt.ACT the soup | b. | I supa kaike/*ekapse.
the soup burnt.NACT/burnt.ACT | (marked) |

B. Consider the French paradigm in (5) and the shortened Greek one in (6). We focus on the anticausatives in b) and the TrACs in c). Surprisingly, the latter have only been recognized in the descriptive literature (Schumacher 1986 on German) but not in the theoretical literature.

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| (5) a. | Le vent a changé / a modifié [la forme [des nuages]].
the wind has changed / has modified the shape of.the clouds | (causative) |
| b. | [La forme [des nuages]] a changé / s'est modifiée.
the shape of.the clouds has changed /SE is modified | (anticausative) |
| c. | [Les nuagesi] ont changé / ont modifié [[leur]i] forme].
the clouds.NOM have changed / have modified their shape.ACC | (TrAC) |
| (6) b. | [i agogimotita [polon epifanion]] afksani/afksanete me tin igrasia.
the conductivity.NOM many.of surfaces.of increases.ACT/NACT with the wetness | |
| c. | [poles epifaniesi] afksanun/*afksanonde [tin agogimotita [tui]] me tin igrasia.
many surfaces.NOM increase.ACT/NACT the conductivity.ACC their with the wetness
'Many surfaces increase their conductivity when they are wet.' | |

C. The c-sentences are syntactically transitive: **i)** They involve a DP_{NOM} and a DP_{ACC}. **ii)** They lack AM even if the anticausative is obligatorily (*modifier* in 5b) or optionally (6b) marked with it. **iii)** They select auxiliary *have* even if the corresponding anticausative selects *be* (5b, c).

D. Despite their formal transitivity, **the c-sentences are semantically anticausative:** A number of tests shows that NP_{NOM} in TrACs does not express an external θ -role of the verb (causer or initiator). **i)** TrACs are unacceptable under passivization. **ii)** While lexical causatives can be paraphrased with periphrastic causative structures ([[5a]] = [[*The wind caused the shape of the clouds to change*]]), TrACs are not paraphrasable by such explicitly causative statements; in fact, strings like (7) are conceptually deviant. Instead, TrACs are paraphrased by their corresponding anticausatives (e.g. (5c) by (5b)). A further paraphrase using the anticausative puts the DP_{ACC} of the TrAC in a PP (shown in (8b) for English). **iii)** While lexical causatives are ambiguous under sentential negation in that either the whole change is negated or only the causal role of DP_{NOM} in this change, anticausatives as well as TrACs only have the first interpretation (as indicated by the (im-)possible continuations in (9a-c)). **iv)** Like anticausatives, TrACs combine with PPs expressing the cause of the event (e.g. 'with the wetness' in (6b, c), cf. Alexiadou et al. 2006).

- (7) #Les nuages font en sorte que leur forme change/ causent le changement de leur forme.
the clouds make so that their form changes/cause the change of their form

(8) a. The gaseous planet *raised* its surface temperature over the course of 2 million years.

- b. The gaseous planet *rose in surface temperature* over the course of 2 million years.
- (9) a. John/the fire did not change the temperature of the water (but its temperature did change).
 b. The temperature of the water did not change (#but its temperature did change).
 c. The water did not change its temperature (#but its temperature did change).
- E. The anticausatives in (5b, 6b) have a complex theme DP_{NOM} expressing a possessive relation. The theme is also a possessee and hosts a genitive possessor DP (10a). In TrACs, this possessive relation is dissociated (10b): The possessor is realized as DP_{NOM} and the possessee as DP_{ACC} . Further, DP_{NOM} binds a (typically overt) possessive pronoun within DP_{ACC} . While (10a, b) are truth-conditionally equivalent (cf. D), they lead to different topic-comment structures.
- (10) a. [TP ... [verb [POSSESSEE_{NOM} [POSSESSOR_{GEN}]]]]. (anticausative)
 b. [TP ... POSSESSOR_{NOM_i} [verb [[POSS PRON_i] POSSESSEE_{ACC}]]]. (TrAC)
- F. TrACs are possible only with a specific subset of scalar verbs. Scalar verbs denote a measure function which provides a difference-value for one of the theme's scalar-valued attributes. While a verb like *warm* in (11a) lexicalizes a fully specified scale (D, >, DIM) (e.g. Beavers 2008, Kennedy & Levin 2008), verbs that form TrACs underspecify (aspects of) their dimension (11b) or even their ordering relation (11c). In (10a, b), the possessee denotes an attribute of the possessor and, thereby, specifies the dimension of change undergone by the possessor.
- (11) a. The soup warmed. b. The soup's temperature rose. c. The soup's temperature changed.
- G. We treat the causative alternation as a Voice-alternation (Alexiadou et al. 2015). Causatives (12a) involve *thematic Voice* (13a) which selects a DP in its specifier and assigns it an agent or causer role. Anticausatives involve *expletive Voice* denoting the identity function (13b) (Wood 2012). SE-marked anticausatives have the idiosyncratic property that their Voice-Projection *must* come with a D-feature enforcing the projection of a specifier (12b). Since $Voice_{EXPL}$ does not provide a θ -role, an ordinary DP could not pass the θ -criterion there (but see below). SE, however, acts as an 'argument expletive'. Denoting the identity function (13c), it can check the D-feature of $Voice_{EXPL}$ without falling victim to the θ -criterion. Greek lacks SE-expletives and thus, $Voice_{EXPL}$ does not *enforce* the projection of a specifier (12c). NACT-morphology derives from the application of the morphological spell-out rule in (14a) (Embick 2004).
- (12) a. [DP_{AGENT} $Voice_{\{AGENT, D\}}$ [V_{CAUS} [V_{STATE} DP_{THEME}]]]]
 b. [SE_{EXPL} $Voice_{EXPL\{\emptyset, D\}}$ [V_{CAUS} [V_{STATE} DP_{THEME}]]]]
 c. [$Voice_{EXPL\{\emptyset, \emptyset\}}$ [V_{CAUS} [V_{STATE} DP_{THEME}]]]]
- (13) a. [$Voice_{AGENT}$] = $\lambda x \lambda e [agent(e, x)]$ b. [$Voice_{EXPL}$] = $\lambda P_{s,t} . P$ c. [SE_{EXPL}] = $\lambda P_{s,t} . P$
- (14) a. Voice \rightarrow Voice[NACT]/_No DP-specifier b. Voice \rightarrow Voice[CAUS]/_DP-specifier
- H. (15a,b) show the structure of SE-marked anticausatives and of TrACs. **Both involve $Voice_{EXPL\{\emptyset, D\}}$.** The only difference is that the D-feature is checked by SE_{EXPL} in (15a) and by the possessor DP_2 in (15b). Crucially, DP_2 obligatorily binds a possessive pronoun inside DP_1 and, thereby, passes the θ -criterion even though it is merged in $Spec, Voice_{EXPL}$ (cf. Myler 2016 on predicative possession). As a consequence, SE cannot appear in French and the rule in (14a) cannot apply in Greek. Further, auxiliary *have* is selected as $Spec, Voice$ is filled by an ordinary DP (cf. Myler 2016). NOM and ACC derive from dependent case theory (Marantz 1991).
- (15) a. [SE_{EXPL} $Voice_{EXPL\{\emptyset, D\}}$ [V_{CAUS} [V_{STATE} [DP_1_{NOM} [DP_2_{GEN}]]]]]]
 b. [$DP_2_{NOM_i}$ $Voice_{EXPL\{\emptyset, D\}}$ [V_{CAUS} [V_{STATE} [$[[pron_i]]$ DP_1_{ACC}]]]]]]
- I. Lexicalist theories predict TrACs to be non-existent. Since they treat AM and/or the lack of ACC in anticausatives as the reflex of a lexical operation of external argument reduction, they predict AM to be necessarily realized and/or ACC to be unavailable if the verb lacks agent/causer entailments - that the verb appears in the syntax of TrACs cannot be foreseen at the lexical level.
- J. We discuss further consequences for the distribution of $Voice_{EXPL}$ in unmarked anticausatives (which can form TrACs; (5/6)) and plain unaccusatives (e.g. *climb*, *fall*) (which never form TrACs). In 'causativization languages' (e.g. Turkish, Japanese), TrACs realize a "CAUSE"-affix on the verb, suggesting that such affixes derive from rule (14b), the mirror-image of (14a).