

Some notes on the meaning components of internally and externally caused verbs.*

Comments on Rappaport Hovav "Lexical content and context. The causative alternation revisited"

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1. Introduction

- "... it is possible to distinguish facets of meaning that are strictly contributed by the verb [the lexicalized meaning] from other facets of meaning that may be derived either from the choice of arguments or from prototypical uses of the verb in context [non-lexicalized meaning]."
 - There are counterexamples to the possibility of a systematic and crosslinguistic (morpho)-syntactic relation between the two members of alternating pairs. Lack of alternation sometimes seems to depend on the theme argument the verb combines with.
- (1) a. John broke the pencil.
b. The pencil broke.
- (2) a. The waiter cleared the counter.
b. *The counter cleared.
- (3) a. Rebecca broke her promise.
b. *Her promise broke.
- Internally caused COS verbs (*wilt*, *bloom*) may have causative counterparts if certain constraints regarding the meaning of their external arguments are satisfied.
- (4) a. The gardenias bloomed.
b. *The gardener bloomed the gardenias.
- (5) Early summer heat bloomed fruit trees across the valley. (LN 1119) ((28) RH)
- Certain verbs cannot be classified as verbs of internally or externally caused change since this condition appears to depend on the choice of arguments.
- (6) a. {**The days / Skirts**} lengthen {in summer / in the eighties}.
b. At his third lie, **Pinocchio's nose lengthened** in such an extraordinary manner that he could not turn around. (*The Adventures of Pinocchio*, Carlo Collodi, Oxford World Classics) ((32b) RH)
- Lexical entailments determine verb/root meaning and, consequently, argumenthood.
 - "The Direct Causation Condition"
- (7) "A single argument root may be expressed in a clause with a transitive verb if the subject represents a **direct cause** of the event expressed by the root and its argument"

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- RH's main claims:
 - i) Verb/root meaning is determined by lexical entailments which in turn determine argumenthood. Root meaning in itself does not condition participation in the CA. The meaning of the theme is determinant in this respect.
 - ii) The distinction between internally and externally caused events does not establish natural classes with respect to the alternation. It is assumed that not only verbs like *bloom* but also verbs like *break* have a monadic root with minimal lexical information.
 - iii) Any monadic verb can be added an external argument. The external argument of alternating verbs is determined based on the Direct Causation Condition.
 - iv) If the lexicalized meaning requires it, the external argument should be realized (*kill*, *destroy*).
 - Vs. Levin and Rappaport Hovav's previous proposals:
 - v) There is no decausativization process.
 - vi) Roots are not inherently causative or non causative (L&RH's 1995 and RH&L's 1998: only internally caused COS verbs are not causative).
 - We will focus on:
 - a) The claim that variability depends on the choice of arguments, especially the claim that the meaning of the internal argument combined with the lexicalized meaning of the root determines selection of the external argument. What about polysemy?
 - b) The assumption that root meaning in itself does not determine participation in the alternation, specifically, the assumption that internally caused COS verbs do not have a CAUSE component in their basic meaning.
- 2. Idiosyncratic selectional restrictions and participation in the causative alternation: *clear* and *break***
- For verbs allowing all types of causers as external arguments sometimes the possibility of participation in the CA depends on the choice of internal arguments.
 - Do we need to posit polysemy to account for cases like (8) and (9)?
- (8) a. The waiter cleared the counter.
b. *The counter cleared.
c. The sky cleared.
- (9) a. Rebecca broke her promise.
b. *Her promise broke.
c. The pencil broke.
- The semantics of alternating verbs:
- (10) **Reinhart's (2002) and L&RH's (1995) generalizations relative to the thematic/semantic composition of alternating verbs:**
Agentive verbs do not have intransitive variants; verbs with unspecified causers do alternate; internally caused COS verbs do not have transitive variants (and when they do their subjects are mainly natural forces).

- In (2) and (3) / (8) and (9) the combination of a supposedly alternating verb with specific internal arguments denotes a change of state that can only be caused by an agent (Brousseau and Ritter (1991), L&RH (1995), a.o).

- Question: Is there a way to maintain the generalization in (10) and also account for the facts in (2)/(8) and (3)/(9)?

- Let us consider first (2)/(8): Polysemy
Spanish: two different verbs in the contexts where English *clear* appears: *limpiar* and *aclarar*.

A) *Limpiar*, as *clean* in English, is an agentive verb which does not have an intransitive anticausative variant.

- (11) a. {El camarero/ *la servilleta / ?? el viento} {limpió/*aclaró} el mostrador.
{The waiter / the napkin / the wind} cleaned / cleared the counter
b. *El mostrador se limpió. (* in the anticausative reading)
the counter SE_{anticausative marker} cleaned
c. { *El día / *La montaña / el valle / el cielo} se limpió.
{The day / the mountain / the valley / the sky} SE_{anticausative marker} cleaned

B) *aclarar* productively participates in the causative-inchoative alternation.

- (12) a. {El peluquero / la edad / la tintura} (le) aclaró el pelo a María.
{The hairdresser / the age / the dye} (her_{dative, feminine}) cleared the hair to María
'The hairdresser / age / the dye' made María's hair lighter.'
b. Su pelo se aclaró {con la edad / con la tintura}.
Her hair SE_{anticausative marker} cleared {with the age / with the dye}
'Her hair became lighter {with age /with the dye}.'

o *Cut / Cortar*.

- (13) a. El panadero cortó el pan. -*cortar*: 'to separate parts of an object using a sharp instrument'
The baker cut the bread
b. *El pan se cortó por sí solo.
The bread SE cut by itself

- (14) La comunicación se cortó. -*cortar*: 'to interrupt'
The communication SE cut
'The communication got interrupted.'

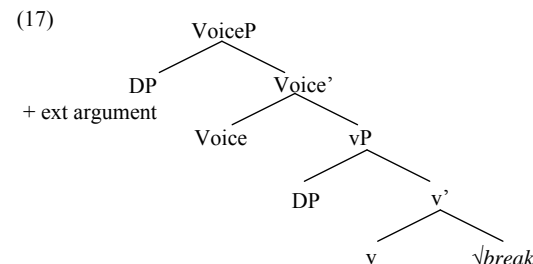
- (3)/(9) **The promise broke*:

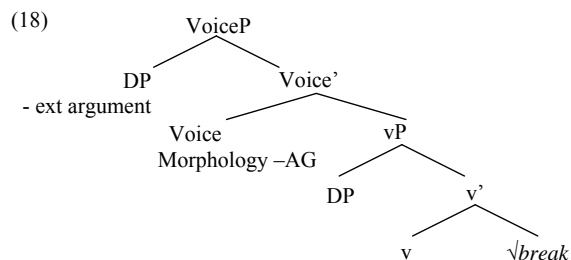
- o The generalization underlying the facts in (3)/(9) is that when causative-inchoative verbs/roots do not have intransitive counterparts it is because they, descriptively speaking, move to the class of purely agentive verbs. This seems to be the case when we extend the basic lexical meaning of physical activities to abstract activities (see Piñón (2001) for a similar conclusion).

- (15) a. El barco se {rompió / quebró} (por sí solo). **Anticausative**
The ship SE {broke / cracked} (by itself)
'The ship broke by itself.'
b. La promesa se {rompió/ quebró} (*por sí sola). **Reflexive-passive /*Anticausative**
The promise SE {broke / cracked} (by itself)
'*The promise broke by itself.'
c. La promesa se rompió (para lograr la recompensa). **Reflexive-passive**
The promise SE broke (to get the reward)
'The promise was broken to get the reward.'
- (16) a. Finalmente se selló (por sí sola) la fuga de petróleo en el Golfo de México. **Anticausative**
Finally, SE sealed (by itself) the leak of oil in the Gulf of Mexico
'Finally, the leak of oil in the Gulf of Mexico sealed by itself.'
(From: {British Petroleum/ la avalancha de arena} selló la fuga de petróleo).
{British Petroleum / the avalanche of sand} sealed the leak of oil
b. *La amistad de Pedro y Juana se selló (por sí sola). *** Anticausative**
The friendship of Pedro and Juana SE sealed (by itself)
(From: Pedro y Juana sellaron su amistad.)
Pedro and Juana sealed their friendship
c. But: La amistad de Pedro y Juana se selló con un beso. **Reflexive-Passive**
The friendship of Pedro and Juana SE sealed with a kiss
'Their friendship was sealed with a kiss.'

- Question: How exactly will a lexical entailment determine that *romper una promesa* ('break a promise') or *sellar una amistad* (lit. 'seal a friendship') are restricted to agentive subjects?

- o A structural account for the generalization underlying the contrasts in (8) and (9).
 - There can be agentivity both at the root level and at the VP level (v+Direct Object combination).
 - Verb meaning can be compositionally built: v head supplies a higher node introducing the external argument with a vP only compatible with an Agent external argument.
 - Let us assume that in languages which have morphologically marked (reflexive)-passives and anticausatives we need to postulate a structure with a VoiceP where external arguments are introduced (Kratzer 1996). The difference between Agent external arguments and other conceivable causers depends on the features of Voice.
 - From Alexiadou (2010): (17) would be the structure for *John broke the pencil/table* and (18) the one for *the pencil/table broke*.





[Alexiadou 2010: p. 182-183]

- (17) and (18) distinguish three levels in the representation of causative events: the level of idiosyncratic meaning (the core meaning), the event/change level and the domain of the Causer external argument.
- How can we account for the constraints on the interpretation of *John broke the contract* and therefore for the impossibility of an intransitive variant *–*The contract broke*– if we do not want to have doubly classified roots?
- Towards an answer based on the existence of lexical-structural factors involved: Roots of alternating verbs are by default stative since they denote a result state and not how this result is reached. In cases like *John broke the promise* vs. **The promise broke* what is systematically involved is the component of how the result is reached. In *break the promise* there is no real change of state, there is no real undergoer. If we use a framework like DM we could think that alternating roots can be inserted either at the root level or as modifiers of v at the vP level (see Alexiadou 2010: 195) depending on the combination Theme-v. When the root modifies v, a manner component is "added" and v' selects an external argument.
- Parallel contrast:

- (19) a. John emptied the tub. / The tub emptied.
 b. I emptied the trash bin./ *The trash bin emptied. [RH (23) in the handout]
 c. **The dust bin emptied** (with a touch of a button and nothing got caught in the bin requiring manual removal. I just purchased this vacuum today so I can't ...).
 [http://www.hot-vacuum-deals.com/421/dyson-dc25-animal-ball-technology-upright-vacuum-cleaner/]

3. The 'cause' component in internally (and externally) caused change of state verbs

- Internally caused COS verbs seem to have a cause component as part of their meaning (detectable in their intransitive use), as it is also the case with externally cause COS verbs.
- It seems that internal and external causation are notions relevant for argument realization.

3.1. Combination with causer PPs

- A causal component in intransitive COS verbs can be crosslinguistically detected by the licensing of Causer-PPs (but not agent-PPs). *Con* can introduce instruments and causers:

- (20) a. Juan abrió la puerta **con la llave**.

- Juan opened the door with the key
 b. La ropa se secó **con el sol**.
 The clothes SE dried with the sun
 'The clothes dried with the sun.'

- Externally caused COS verbs.
- (21) a. La vajilla se rompió con {el terremoto / tus golpes / *Juan / *el martillo}.
 The dishes SE broke with {the earthquake / your hits / Juan / the hammer}
 'The dishes broke with...'
 (*La vajilla se rompió con el martillo* is possible as a reflexive passive)
- Internally caused COS verbs
- (21) b. El árbol floreció con {el sol / la primavera / el fertilizante / *el jardinero / *la manguera}.
 The tree bloomed with {the sun / the spring / the fertilizer / the gardener / the hose}
 c. La fruta maduró con {el sol / el producto que le eché / *Juan / ²la cámara frigorífica}.
 The fruit ripened with {the sun / that product I put on it / Juan / the cold store}
 d. Las uvas fermentaron {con la humedad / * con Juan}.
 The grapes fermented {with the humidity / with Juan}
- There is an asymmetry between the possibility of expressing the Cause through an external argument and through a causer PP.
- How could a lexical entailment approach explain this difference if a structural distinction between Agents and Causers is not assumed?
- (21') a. {Juan / el martillo} rompió la vajilla.
 {Juan / the hammer} broke the dishes
 b. Juan fermentó las uvas.
 Juan fermented the grapes
- In the line of AAS (2006) we would like to claim that these PPs are licensed via adjunction to vCause.

3.2. Dative causers

- Externally caused and internally caused intransitive COS verbs can combine with a dative DP which is interpreted as an unintentional causer of the event (Schäfer 2008, 2009, Rivero 2004, Cuervo 2003, Fernández Soriano 1999).

- (22) a. A Juan se le rompieron las gafas.
 to Juan_{dat} SE he_{dat} broke_{3,pl} the glasses
 'John unintentionally broke the glasses.'
 b. A Juan le florecen los árboles.
 to John_{dat} he_{dat} bloom_{3,pl} the trees
 'John causes the trees to somehow bloom (i.e., he is a good gardener).'
- [Schäfer 2008: 69, (67)]

- Schäfer (2008, 2009): this dative constituent occupies the specifier of an applicative head above a causative node. Such causers are crosslinguistically only possible in unaccusative change-of-state contexts; this suggests that these contexts themselves are the source of the causative semantics.

3.3. Scope of negation

- Koontz-Garboden (2009: 102ff.): scope of negation facts show that only externally caused COS verbs have a causal component. In (23a) it is not denied that any glass entered into a state of brokenness. It is being denied that the glasses were the cause of their own breaking. (23b) is interpreted as a contradiction, according to Koontz-Garboden. In this case, "what is negated is that there was a change of state in the patients".

- (23) a. No se rompió ningún vaso; los rompió Andrés.
No SE broke any_{NPI} glass; them broke Andrés
'Any glass didn't break; Andrés broke them.'
- b. # No empeoró ningún paciente. Los empeoró el tratamiento.
no worsened any_{NPI} patient. Them worsened the treatment
'Any patient didn't worsen. The treatment worsened them.'
- [Koontz-Garboden 2009: (83), (84)]

- However:

- (24) ...en esta sociedad si no maduras te maduran a ostias, cuando vives solo
...in this society if not mature_{2.sg.pres} YOU_{acc} mature_{3.pl.pres}
y por tu cuenta, tienes que limpiar el piso, prepararte la comida, tienes ganas de ...
[www.prisonfreak.com/foro/viewtopic.php?f=1&t=4863&start=15]
'In this society, if you do not mature (by yourself), they make you mature ...'

- Conclusion: both externally and internally caused COS verbs have a causal meaning component in their intransitive variant.

3.4. Transitive variants of internally caused COS verbs.

- Internally caused COS verbs have transitive variants, (McKoon & Macfarland 2000; Wright 2002, Levin *to appear*, Rodríguez Ramalle 2005 for Spanish).
- (25) a. la jefa de la delegación [...] pudo zafar del fuego de las llamas que **ardió los muebles** y la puerta de acceso a su oficina [http://www.lacapital.com.ar/contenidos/2008/12/10/noticia_0073.html]
→ **El fuego ardió los muebles: the fire burnt the furniture**
- b. A la tercera poda de cada madre te aseguras otros 16 esquejes de cada hembra que puedes poner a enraizar mientras **floreces las madres** (hembras que te salieron de semillas) [http://www.lamarihuana.com/foros/cultivo-exterior-f3/novato-t33200.html]
→ **[tú] floreces las madres: you blossom the mother plants**
- c. El invernadero sometido al estímulo musical **había germinado el maíz** con mayor rapidez. [Benezon, R. O. *Manual de musicoterapia*; CREA]
→ **El invernadero había germinado el maíz: the greenhouse had germinated the corn**
- d. El sol **aclaró el día** y de paso permitió ver cuál era la escena real [La jornada de Veracruz, 24-10-2010; http://www.jornadaveracruz.com.mx/Noticia.aspx?ID=101024_223738_938]
→ **El sol aclaró el día: the sun cleared the day**
- e. El joven Miguel Ángel [...] En 1995 **fermentó las primeras uvas** para hacer un vino propio [http://elmundovino.elmundo.es/elmundovino/noticia.html?vi_seccion=5&vs_fecha=201006&vs_noticia=1277659137]
→ **Él fermentó las uvas: he fermented the grapes**

(25') More examples...

- a. ...cuando el médico empeora el cuadro del paciente [www.scribd.com/doc/.../Temas-de-Seminarios-de-SICO]

→ **El médico empeora el cuadro: the doctor worsened the patient's symptoms**

- b. Lamerse los labios empeora el cuadro clínico [http://pekebebe.com/2146-labios-quemados-y-resecos-en-tus-pequenos]

→ **Lamerse los labios empeora el cuadro clínico: licking your lips worsens the symptoms**

- c. El sol maduró las frutas del huerto. [http://www.diccionarioweb.org/sv/Madurar]

→ **El sol maduró las frutas del huerto: the sun ripened the fruits**

- d. ... Hanson hizo una advertencia que palideció a los asistentes "el mundo solo tiene 10 años para frenar el calentamiento global!"

[www.ecoportal.net/.../Mentiras_claras_y Verdades_oscuras_Bush_y_la_geopolitica_energetica]

→ **La advertencia palideció a los asistentes: his warning paled the attendees**

- These examples describe internally caused events which are triggered or facilitated by natural forces, environmental phenomena or ambient conditions, events, or by the intervention of some instrument (*invernadero*) or even agents when the process described by the verb can be controlled by an external animate entity through specific means. → **We agree with RH that this only happens with a restricted set of subjects.**

- But it seems that the syntactic status of the causative use of these verbs is different from that of externally caused COS verbs. For example, internally caused COS verbs cannot be the basis for the formation of deverbal adjectives with the suffix *-able/-ible* (unless in the structure <V *todo lo* V>, see Oltra 2009).

- (26) a. hundible, rompible, oxidable, etc.
sinkable, breakable, rustable
- b. *muebles ardibles (burnable furniture), *día aclarable (clearable day), *planta florecible (bloomable plant), *frutas madurables (ripeable fruit), *asistentes palidecibles (paleable attendees), etc.

- An appropriate verbal base for *-ble* derivation must have an internal theme argument, and an agentive external argument (Rainer 1999: 70.2.2.2).

- Internally caused COS verbs in Korean: The word *phi-* 'blossom' is only used as an intransitive, (27a). To be used as a transitive, it should combine with the causative morpheme *-wu-*. In this case a subject which is not a direct causer is allowed, (27b) vs. (27c).

- (27) a. Cangmi-ka phi-ess-ta.
Rose-Nom blossom-Past-Decl
'The rose blossomed.'
- b. Cangminamwu-ka ppalkan cangmi-lul phi-*(wu)-ess-ta.
Rose.tree-Nom red rose-Acc blossom-Caus-Past-Decl
'(lit.) A rose tree blossomed red roses.'
- c. *Tewun nalssi-ka ppalkan cangmi-lul phi-wu-ess-ta.
Hot weather-Nom red rose-Acc blossom-Caus-Past-Decl
'(lit.) The hot weather blossomed red roses'

- A main question coming out from the transitivity facts is how the Direct Causation Condition can explain the following two facts:
 - a) The transitive variants of internally caused COS verbs do not only have a restricted set of subjects, but their external arguments also appear to have different syntactic behaviours with respect to certain grammatical processes.
 - b) There are crosslinguistic differences in the sense that in some languages transitivity is not possible (Korean), even if the subjects of the internally caused COV satisfy the DCC, (27c).
 - c) What could the DCC say about SE? What could SE be in this approach?

4. Conclusions

In this presentation we have examined RH's proposal that lexicalized meaning should contain a core meaning and lexical entailments if we want to account for certain recalcitrant facts which pose problems both to derivational and non-derivational approaches to the causative alternation. We find RH's proposal new and illuminating. In our brief comments, we have tried to elaborate the hint that, apart from its intrinsic interest for theories of lexical meaning, it could help to refine the theory of roots in non-derivational approaches to the CA. It could perhaps be necessary to implement a mechanism of root modification. We have also discussed some aspects of languages which mark either transitivity or detransitivity morphologically. In order to implement RH's approach cross linguistically such a type of fact should be taken into account.

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