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Anticausatives have no Cause(r): A rejoinder to Beavers and Koontz-Garboden (in this issue)

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Abstract

This paper reaffirms the conclusion of Horvath and Siloni (2011a) that unaccusatives – with or without the so-called reflexive morphology – involve no Cause ingredient whatsoever. Arguments based on the distribution of the modifier *by itself*, negation, and the Greek cause preposition *apo* show that. Beavers and Koontz-Garboden's (in this issue) counterarguments to Horvath and Siloni are either based on partial data or confounded by independent factors.

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1. Introduction

The present paper is a rejoinder to an on-going debate about the formation of unaccusative verbs. Following Chierchia (2004), Koontz-Garboden (2009) argues that unaccusatives marked by the so-called reflexive morphology (henceforth, anticausatives), as in (1a), are related to the corresponding transitive (1b) by the same process that relates transitives and reflexives in cases like (2). Coidentification of the Agent and a role from the internal domain forms a reflexive verb. Similarly, coidentification of the Cause(r) (alias Effector, a role specified for causation but not for mental state (1b)) and the internal role results in an anticausative verb, whose subject is a Cause-Theme argument (alias Effector-Patient).¹ Indeed, it is a well-known generalization that the transitive alternates of unaccusatives have a Cause external role crosslinguistically (Haspelmath, 1993; Reinhart, 2002).

- (1) a. La fenêtre s'est cassée. (French)
the window SE is broken
'The window broke.'
- b. Jean / le tremblement de terre / la pierre a cassé la fenêtre.
Jean / the earthquake / the stone broke the window.

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¹ Henceforth, for convenience, we use the term Cause when referring to the role specified for causation but not for mental state, and Causer when referring to the argument bearing this role.

- (2) a. Pierre a lavé l'enfant.
Pierre has washed the boy
- b. L'enfant s'est lavé.
the boy SE is washed
'The boy washed(REFL)'

Horvath and Siloni (2011a) present a series of arguments against the reflexivization analysis of anticausatives. In response to their arguments, Beavers and Koontz-Garboden (in this issue) (henceforth, BKG) reaffirm the reflexivization analysis. They argue that the observations Horvath and Siloni (2011a) make and use against the reflexivization approach are either incorrect or follow from interfering factors.

In this article, we respond to BKG's objections. We will show that on closer inspection not only that no evidence points to the presence of a Cause(r) in anticausatives, but the data in fact indicate that there is absolutely no Cause(r) involved in anticausatives.

2. Theoretical advantages?

BKG point to three theoretical benefits of their approach. We will examine them here one by one, showing that they are not advantages.

First, they argue that the reflexive analysis they propose for anticausatives explains why in many languages many unaccusatives are marked by the so-called reflexive morphology: As unaccusatives marked by reflexive morphology and true reflexives are both derived by a single operation of reflexivization, the syncretism is directly explained. Crucially, however, this morphological marking is not unique to these two diatheses. In Spanish (which is the language BKG rely on) and more generally in Romance, Slavic and Semitic languages (for instance) this morpheme appears not only with unaccusative and reflexive verbs, but also with middles, reciprocals and even passives. At least, middles and passives certainly do not involve any sort of reflexivization. It is thus wrong to associate the morpheme specifically with the reflexivization operation. What these various diatheses do seem to share is their having one argument less than their transitive alternates, in the syntax. (This is why the so-called reflexive morphology has often been claimed to be associated with reduction of syntactic valence; see Grimshaw, 1982; Wehrli, 1986; Rappaport Hovav and Levin, 1998; Reinhart and Siloni, 2005; Siloni, 2012, among others). Thus, in fact, it is not at all desirable to relate the relevant morpheme specifically with reflexivization.

The second gain BKG attribute to their approach concerns the Monotonicity Hypothesis, by which operations on lexical semantics cannot delete meaning, only addition is possible (Koontz-Garboden, 2009). Hence, if the direction of derivation is from transitive to anticausative, by Monotonicity, the Cause cannot be deleted altogether. Under BKG's approach, it is not deleted but rather gets associated with the Theme argument.

First, this is, of course, not an advantage of the reflexivization approach, when compared to approaches deriving the transitive verb from the anticausative or directly from the root, as the latter do not involve any deletion. Setting this option aside, note that monotonicity is a stipulation, not a fact about lexical operations. There is no a priori reason why lexical operations should disallow deletion of information. What underlies "monotonicity" convictions is probably the belief that the lexical representation of predicates involves semantic (λ -) formulas. Eliminating information from a λ -formula is indeed illicit. However, on our view, lexical representations include formal features, semantic features, and specific thematic information (θ -roles), not λ -representations. We believe this must be so because λ -representations involve ordered arguments (e.g., $\lambda y \lambda x \lambda e(\text{read}(e) \ \& \ \text{Agent}(e, x) \ \& \ \text{Theme}(e, y))$). And the order of arguments at least in some cases can be determined only based on syntactic considerations, and hence cannot be represented in the lexicon (prior to the merger of syntactic structure). On our view, whereas deletion from the semantic formula is indeed impossible, a priori, nothing blocks deletion of some lexical information (as part of a lexical operation), resulting in a new, derivationally related lexical entry.

Third, the reflexivization approach, argue BKG, explains in a straightforward manner why only verbs with a Cause role have an anticausative alternate: If the external role of the input is inanimate (a Cause), reflexivization forms an anticausative; but if the role is animate (Agent), a reflexive output is formed ("Agent act on self"). At first glance, this seems elegant: one operation and two types of outputs depending on the type of role the input involves. But the facts are different. It has often been observed that in quite a few languages (Hebrew, English, Arabic, Russian, Belarusian, Ukrainian, among others), the set of reflexive verbs is very limited. Many Agentive verbs do not have a reflexive counterpart. And most (if not all) transitive verbs whose external role can be realized as either an inanimate Causer or an Agent have only an unaccusative (anticausative) alternate, not a reflexive one. On BKG's approach, there is no reason why in these languages the operation can result consistently in anticausatives, but cannot do so for reflexives, even when the subject is [+human].

BKG try to refute the claim that in Hebrew the set of reflexives is limited, by providing a single example (*hitxamem* ‘warmed up’) that one speaker accepted as a possible reflexive while two others rejected to various degrees (see their example (42) p. 17 and the related discussion). Their claim is odd. Setting aside the contradictory judgments they got, methodologically, one example, of course, cannot undermine the claim that the set of reflexives is limited in Hebrew.² The fact that reflexives constitute a closed set in many languages including Hebrew (English, Arabic, etc.) is well-documented both in reference grammars and in the linguistic literature.

In languages where reflexivization is productive, and reflexives and unaccusatives share the same morphological form, examples involving such forms are of course ambiguous between a reflexive reading and an unaccusative one (this happens whenever the input has an external role realizable as an Agent or an inanimate Cause, preferred reading depending on world knowledge, context, etc.). This is trivial and expected under BKG’s approach as well as under Horvath and Siloni’s.³

BKG might possibly retreat to the claim that the reflexive analysis of anticausatives is correct only for languages where the formation of reflexive verbs is productive (Spanish, Italian and other Romance languages, Czech, Serbian, etc.). Theoretically, this would be an undesirable move as it means not capturing the fact that unaccusatives show the same core properties crosslinguistically (whether or not the formation of reflexive verbs is productive). Empirically, this option is untenable: evidence discussed in the subsequent sections shows that there is no Cause(r) in anticausatives in Spanish and Italian either.

3. By itself

Chierchia (2004) and Koontz-Garboden (2009) argue that the modifier *by itself* in the sense of ‘without outside help’ requires a Causer (local) subject. Hence, it is impossible with statives (which do not involve causation at all), but possible with Agentive verbs including reflexives (3a). Crucially, they add, the modifier is also possible with unaccusatives (3b), thus showing that the subject of the latter is also interpreted as the Causer of the event described by the verb (in addition to being the Theme). This, they conclude, provides support for the reflexivization approach.

- (3) a. Gianni si è lavato da sé. (Italian)
Gianni SE is washed by self
‘Gianni washed by himself.’
- b. La porta si è aperta da sé.
the door SE is opened by self
‘The door opened by itself.’

Koontz-Garboden (2009) and BKG further argue that only anticausatives (unaccusatives with reflexive morphology) are derived by reflexivization. Hence, they expect only them to definitively allow *by itself*. Unmarked unaccusatives, being underived entries (according to them), can be lexicalized on an individual basis with or without a Cause ingredient, and hence sporadically allow *by itself*.

However, there does not seem to be any systematic difference between morphologically marked and unmarked unaccusatives. In the languages we looked at (Italian, Spanish, Romanian, Hebrew, Hungarian, English), the possibility of using *by itself* with unaccusatives is independent of their morphological form. Thus, for instance, in Italian *da sé* is possible with unaccusatives independently of whether they are marked (4a–b) or unmarked (4c–f) by the so-called reflexive morphology (thanks to Gennaro Chierchia for discussing the *da sé* data with us).

- (4) a. La porta si è rotta da sé.
the door SE is opened by itself
‘The door opened by itself.’
- b. La situazione si è detriorata da sé.
the situation SE is worsened(deteriorated) by itself
‘The situation worsened(deteriorated) by itself.’

² The verb *hitxamem* has a particular reflexive meaning different than the one BKG try to advance, it means warming up one’s body prior to athletic activity. Although English morphologically marks neither unaccusatives nor reflexives, BKG also mention two isolated English examples, where a reflexive reading seems to be coerced. This again, by no means, undermines the claim that the set of English reflexive verbs is limited.

³ In fact, such examples in Romance and certain Slavic languages often have more than two readings, because the morphological form appears also on reciprocals, passives, etc., as just mentioned.

- c. La barca è affondata da sé.
the boat is sunk by itself
'The boat sank by itself.'
- d. La situazione è migliorata da sé.
the situation is improved by itself
'The situation improved by itself.'
- e. Il vaso/Gianni è caduto da sé.
the vase/Gianni is fallen by itself
'The vase/Gianni fell by itself/himself.'
- f. La soluzione è emersa da sé.
the solution is emerged by itself
'The solution emerged by itself.'

The Spanish examples cited by Koontz-Garboden (2009) and BKG (from Mendikoetxea, 1999) to make their point that unaccusatives without reflexive morphology disallow *por sí solo* ('by itself') include the unaccusatives *empeorar* ('to worsen'), *hervir* ('to boil'), and *crecer* ('to grow').

- (5) a. ??Juan empeoró por sí solo.
Juan worsened by himself
??'Juan worsened by himself.'
- b. ??La leche hirvió por sí solo.
the milk boiled by itself
- c. ??El niño creció por sí solo.
the child grew by himself

(Mendikoetxea, 1999:1598)

We believe the above examples are marginal because they do not naturally allow emphasizing that the event took place by itself (owing to world knowledge, choice of subject, setting, etc.), not because these verbs disallow *by itself* modification. Thus, if *Juan* in (5a) is replaced by 'the situation of the patient', the sentence (6a) (implying the parenthesized context) is as good as the sentence in (6b), which includes a *se* unaccusative (thanks to Amaya Mendikoetxea for discussing the *por sí solo* data with us).

- (6) a. La situación del paciente empeoró por sí sola, (el médico no tiene la culpa).
the situation of.the patient worsened by itself (the doctor not has the fault)
'The patient's situation worsened by itself (it isn't the doctor's fault).'
- b. El barco se hundió por sí solo.
the boat is sunk by itself
'The boat sank by itself.'

Consider next the sentence in (5b). We know that milk or water for that matter does not boil by itself. This is why stating that it did so by itself is odd. But in the right context of say incredibly hot weather, it makes sense to utter (7), contrasting the described state of affairs with the one we are used to (where humans heat water to make it boil).

- (7) Hacia un calor increíble ayer; el agua que dejé en el alféizar de la ventana hirvió por sí solo.
made a heat incredible yesterday; the water that left.I on the sill of the window boiled by itself
'It was incredibly hot yesterday; the water I left on the windowsill actually boiled by itself.'

(5c), in contrast, is odd because we tend to grasp growth as a natural biological process which (although dependent on additional factors) is internally triggered. However, if we set up a scenario where a child has a growth problem which may necessitate giving him hormones, but finally grows up without their help, then (5c) becomes entirely possible.

Moreover, Horvath and Siloni (2011a) show that in certain languages (e.g., Hebrew, Romanian, and Hungarian), there are two distinct "without outside help" modifiers: one modifies agentive verbs and the other unaccusatives, suggesting that the two classes should not be lumped together. Hebrew, for instance, has two such modifiers: *be-acmo* 'in himself'

and *me-acmo* ‘from itself’, both of which are possible only with eventive verbs (not statives). Agentive verbs license *be-acmo* ‘in himself’. The modifier *be-acmo* requires an Agent, and is, therefore, possible only with animate subjects. Unaccusatives, in contrast (with or without reflexive morphology), license *me-acmo* ‘from itself’, which, in addition, disallows an animate subject participant in the event.

Under Horvath and Siloni’s approach, while both modifiers indeed assert that there is no outside intervention of a Causer, each has a slightly different function. The modifier *be-acmo* ‘in-himself’ refers to an Agent subject, stating that it acted without outside help. *Me-acmo* ‘from itself’, in contrast, is licensed in sentences where the event does not include a participant bearing a Cause role at all, neither an inanimate Causer nor an Agent, neither in the syntax nor at the level of interpretation. It states that the Theme undergoes the event without any outside intervention.

BKG offer an alternative approach, under which both *be-acmo* ‘in himself’ and *me-acmo* ‘from itself’ are licensed by the same condition. Specifically, they require a Causer subject, an inanimate Causer or an Agent. The modifiers differ with regard to animacy: *be-acmo* ‘in himself’ requires an animate subject (Agent), while *me-acmo* ‘from itself’ requires an inanimate subject. But BKG have not proceeded to seek decisive evidence. Below we show that such evidence exists and points to the correctness of Horvath and Siloni’s view.

Crucially, the two approaches have very different, in fact opposite, predictions with regard to sentences having an inanimate Causer subject. Under BKG’s approach, *me-acmo* should be possible as it requires an inanimate Causer subject. Under our approach, *me-acmo* should be completely impossible since it is limited to ‘Causer-less’ sentences. As illustrated in (8), our prediction turns out to be correct: sentences having an inanimate Causer subject disallow *me-acmo* altogether.

- (8) a. Ha-ru’ax šavra et ha-xalon (*me-acma).
the-wind broke ACC the-window (from-itself)
- b. Ha-xom hemes et ha-kerax (*me-acmo)
the-heat melted ACC the-ice (from-itself)
- c. Ha-ru’ax patxa et ha-delet (*me-acma).
the-wind opened ACC the-door (from-itself)

The impossibility of *me-acmo* in sentences with an inanimate Causer subject shows that *me-acmo* is not licensed by a Causer subject, contra BKG’s claims. It follows that the occurrence of *me-acmo* does not entail the presence of an inanimate Causer subject in anticausatives, on the contrary, it shows that it is absent. Thus, languages like Hebrew, with two *by itself* modifiers, show that the common denominator allowing *by itself* or its variants is not the presence of a Causer subject (inanimate or Agentive). Rather, *by itself* asserts that no outside help/intervention is involved. In certain languages (English, Spanish, Italian), the same modifier is used with Agentives and unaccusatives to assert lack of outside causation. In other languages (e.g., Hebrew, Hungarian, Romanian) one modifier is used to assert that an Agent was the sole Causer, and another modifier in Causer-less sentences to affirm that a Theme subject is involved in the event, with no help or intervention of Causers.

The impossibility of *me-acmo* in (8) above suffices to reject BKG’s approach to ‘by itself’. Nonetheless, for the sake of completeness, let us further discuss *be-acmo* (which appears with Agentives) and the situation in languages with one ‘by itself’ modifier.

Note first that the two approaches (BKG’s and ours) do not differ in their predictions regarding *be-acmo* in sentences with an inanimate Causer subject. Both predict that the addition of *be-acmo* to such sentences will yield anomalous sentences, as *be-acmo* requires an Agent subject. This is indeed so: These sentences have a personification flavor.

- (9) a. Ha-ru’ax šavra et ha-xalon (??be-acma).
the-wind broke the-window (in-itself)
- b. Ha-xom hemes et ha-kerax (??be-acmo).
the-heat melted the-ice (in-itself)

More importantly, also *por sí solo* (Spanish) (10a–b) and *da sé* (Italian) (10c) are weird/marginal in sentences with an inanimate Causer.

- (10) a. El viento rompió el vidrio (??por sí solo).
the wind broke the glass (in itself)

- b. El calor fundió el hielo (??por sí solo).
the heat melted the ice (by itself)
- c. Il vento ha rotto il vetro (??da sé).
the wind has broken the glass (by itself)

This is also entirely unexpected under BKG's approach, by which a Causer (animate or inanimate) licenses 'by itself'. Under our approach, in contrast, these data follow straightforwardly. On the one hand, these sentences, unlike unaccusative sentences, include a Causer, hence the *by itself* modification limited to Causer-less sentences is banned. On the other hand, the subject is not an Agent (it is an inanimate Causer), hence, the *by itself* modification stating that the Agent was the sole Causer is also very weird, as an inanimate cannot be an Agent (unless personified). The data in (10) show that the Spanish and Italian modifiers are cover modifiers for the same usages that are manifested by the Hebrew modifiers. More specifically, they appear in two types of sentences: either when there is no Causer whatsoever in the sentence, that is, with unaccusatives, or when an Agent is the sole Causer. (A priori, one could imagine a modifier of the sort that would not be specific to Agents, but that is not so in Spanish and Italian.) Thus, even languages with one *by itself* modifier provide evidence against BKG's approach.⁴

In sum, (i) the unaccusatives without *se* that are cited by Koontz-Garboden and BKG, to show that such unaccusatives disallow 'by itself', do allow 'by itself' modification when pragmatically appropriate. (ii) There is straightforward evidence in languages such as Hebrew (with two 'by itself' modifiers) but also in Romance that modification by 'by itself' in sentences with unaccusative verbs is licensed by the absence of a Causer (not by its presence).

4. Negation

Koontz-Garboden (2009) claims that the reflexivization analysis of anticausatives receives support from a prediction it makes with regard to negation. On the reflexivization proposal the anticausative also specifies causation, as its subject is a Causer-Theme argument. It follows that the causative alternate does not entail the corresponding anticausative. Though they both assert the same change of state, they make different assertions about the identity of its Causer: only in the anticausative case the Theme is also the Causer. Consequently, this analysis predicts that one should be able to deny the truth of the anticausative proposition (that is, deny the identity of the Causer it designates), and assert the causative counterpart with no contradiction arising (as it designates a different Causer). BKG maintain that this prediction is indeed borne out, based on examples such as (11) adapted from Koontz-Garboden (2009:103 (57)):

- (11) Son: El vaso se rompió.
'The glass broke.'
Father: No se rompió – sino que lo rompiste tú!
NEG REFL broke rather it broke you
'The glass didn't break – you broke it!'

Horvath and Siloni challenge the conclusion, on the grounds that when no contradiction seems to arise, it is because the negation involved in the example is interpreted as a *metalinguistic* one, namely negation challenging/correcting the particular verb (i.e., the anticausative) used in the assertion, and replacing it by the causative version. Koontz-Garboden admits the possibility that such examples involve a metalinguistic negation reading (in the above sense). However, he claims that even when the metalinguistic option is distinguished and excluded by use of negative polarity items (NPIs), which metalinguistic negation fails to license (Horn, 1985) (in contrast to *logical*, truth-conditional, negation), the predicted lack of contradiction between the negated anticausative and the causative proposition still stands.

Horvath and Siloni, in contrast, argue that evidence from Spanish, Hungarian and Hebrew in fact establishes that the relevant negation examples are non-contradictory only when interpreted as cases of metalinguistic negation; they present

⁴ Koontz-Garboden cites (i) (his (62)) as a Google example of *por sí solo* modification with an inanimate Causer subject. This example might suggest that the modifier *por sí solo* that modifies Causer subjects may not be specific to Agents. However, as is well-known the modifier 'by itself' has two interpretations (Levin and Rappaport Hovav, 1995): "without outside help" and 'alone'. In (i) *por sí solo* is interpreted as 'alone': 'It cannot be said that no hit alone (i.e., no single hit in itself) killed the victim'. The distribution of the modifier *por sí solo* 'alone' is different, and this usage is irrelevant for our purposes.

(i) No se puede decir que ninguno de los golpes haya matado por sí solo a la víctima.
not se can say that none of the hits has killed by itself to the victim
'It cannot be said that no hit has by itself killed the victim.'

evidence that logical negation of the proposition of the anticausative clause and assertion of its causative version do result in a contradiction.

The primary objection BKG bring up in their reply against the evidence Horvath and Siloni present for the necessarily metalinguistic nature of negation in examples such as (11) is that the NPI diagnostics Horvath and Siloni use, mirroring those used by Koontz-Garboden, involve additional, irrelevant factors that might affect and distort speakers' judgments on Horvath and Siloni's data, thus invalidating the conclusion drawn from them. Although we reexamined the examples and found that speakers give repeatedly consistent judgments on the relevant NPI data, let us grant that BKG's concern is possibly justified, and assume that given the potential orthogonal problems involved in adding an NPI (as they suggest), it is best avoided; hence, we do not discuss any further the NPI data and the varying judgments they may trigger. In fact, as we explain below, there is a direct way to avoid the need for NPIs as means of teasing apart the use of negation that involves conditions on truth versus the "metalinguistic" function of negation (in the broad sense, as defined by Horn, 1985).

As noted by Horn (1985), metalinguistic negation is an objection to, and correction of, some aspect of a previous utterance (no matter whether it is the pronunciation, morphology, syntactic form, presupposition, pragmatic implicature, or whatever other aspect of the utterance used that is being objected to and replaced by an alternative). In contrast, what he calls the *descriptive*, i.e., non-metalinguistic, use of negation is a logical operation affecting truth conditions. Therefore, the latter but not the former is relevant for determining entailments.

It follows then that the occurrence of metalinguistic versus sentential logical negation can be distinguished by the context the negated clause can occur in. Specifically, Horn observes regarding the characteristic requirements for metalinguistic negation (and crucially, not for logical negation of propositions): they "... occur naturally only as responses to utterances by other speakers earlier in the same discourse contexts. ..." and have "... contrastive intonation with a final rise within the negated clause (the contradiction contour. . .), followed by a continuation in which the offending item is replaced by the correct item in the appropriate lexical, morphological, and phonetic garb – a rectification. . ." (Horn, 1985:134–135).

Thus, if the context used to test negated anticausatives is chosen to be one that is not compatible with the type of context required for the metalinguistic (rectification) interpretation, this will leave the negation unambiguously truth-conditional (logical) negation of the proposition. This will be an unambiguous test case for whether or not the causative entails the corresponding anticausative, avoiding the need for adding an NPI in an attempt to eliminate the (irrelevant) metalinguistic interpretation. In this way, a clear distinction can be drawn between Koontz-Garboden and BKG's reflexivization analysis of anticausatives on the one hand and the absence of Causer claimed by Horvath and Siloni's analysis on the other.

To begin with, notice that when the designated bearer of a particular theta role in a proposition is contrary to fact, this entails that the proposition containing it is false, hence logical sentential (wide scope) negation of the proposition is appropriate. For instance, observe (using English for convenience of demonstration) that if the speaker knows that Bill broke the glass, given a single specific glass, the assertion regarding any other potential Causer, such as John, stating that "John didn't break the glass" is a coherent, truthful proposition in the given situation. Moreover, no suspicion of the negation being metalinguistic arises in this type of context as there is no preceding utterance being corrected, and no replacement/rectification of the negative sentence is offered (as would be the case for metalinguistic negation).

With this background, we can turn now to Koontz-Garboden and BKG's reflexivization proposal. Recall that it predicts that sentential non-metalinguistic negation of the anticausative will be possible in contexts where the causative counterpart of the sentence is assumed to be true by the speaker. In other words, it predicts that the negated anticausative sentence will not be judged as untruthful or incoherent. This is so since the anticausative sentence on the reflexivization proposal designates the identity of the Causer with the Theme, while the causative identifies a distinct Causer and therefore does not entail the anticausative alternate. If so, then the proposition of the anticausative sentence indeed should be able to get negated without contradicting the truth of the causative proposition.

Consider then first the case of English below for purposes of initial demonstration of the relevant test we are proposing in order to assess the above prediction.

- (12) a. Context: Speaker A knows that *John broke the glass*; given this, is Speaker A necessarily lying (or being incoherent) when he states (12b)?
- b. #The glass didn't break.
- (13) a. Context: Speaker A knows that *The doctor's negligence worsened the patient's condition*; given this, is Speaker A necessarily lying (or being incoherent) when he states (13b)?
- b. #The patient's condition didn't worsen.

Both (12b) and (13b) are judged as incoherent/untruthful utterances under the circumstances stipulated by the Context. Speakers say that only the change of state is being negated in the anticausatives above, hence the judgment of incoherence/untruthfulness.

Crucially, compare the above judgments with those of a parallel test conducted for genuine, uncontroversial reflexive verbs (i.e., verbs taking an Agent-Theme subject).

- (14) a. Context: Speaker A knows that *The nanny washed the kid*; given this, is Speaker A necessarily lying (or being incoherent) when he states (14b)?
b. The kid didn't wash.

(14b), unlike (12b)–(13b), is judged possible; namely, it is taken not to be necessarily in conflict with the given Context. It can be interpreted as denying not that washing (of the kid) took place, but that self-washing took place, i.e., denying that there was an event whose Agent was *the kid*.

Let us turn now to the examination of the crucial Spanish data under discussion, using the above type of (unambiguously non-metalinguistic) context. The reflexivization account of derived anticausatives, proposed by Koontz-Garboden and BKG specifically for Spanish, would lead us to expect to be able to have licit sentential negation of the anticausative, no less than negation of genuine uncontroversial reflexives. We have tested this prediction on the anticausative (15b) and the (alleged) underived unaccusative (16b) – the same verbs used by Koontz-Garboden; these judgments were contrasted with judgments received in the case of (uncontroversial) reflexives (17b)–(18b) in the same context.⁵

- (15) a. Context: You know that 'Juan broke the glass'; given this, would you be lying (or incoherent) if you stated (15b)?
b. #*No se rompió el vaso.*
'The glass didn't break.'
(16) a. Context: You know that 'The negligent treatment worsened the patient's condition'; given this, would you be lying (or incoherent) if you stated (16b)?
b. #*No empeoró el estado del paciente.*
'The patient's condition didn't worsen.'

Parallel to its English counterpart, the negated anticausative (15b) is judged unequivocally untruthful/incoherent if uttered in the given context; it is parallel in this respect to (16b) (the latter claimed by Koontz-Garboden to be underived). The judgment reflects speakers' claim that it is necessarily the change of state that is being negated in both of the above examples. Compare this with the genuine reflexive examples below:

- (17) a. Context: You know that 'The nanny bathed the child'; given this, would you be lying (or incoherent) if you stated (17b)?
b. *El niño no se bañó.*
'The child didn't bathe.'
(18) a. Context: You know that 'The nanny cut the child'; given this, would you be lying (or incoherent) if you stated (18b)?
b. *No se cortó el niño.*
'The child didn't cut himself.'

As indicated above, (17b)–(18b) are judged possible: specifically, they are taken not to be necessarily false in the given Context. The reason is that speakers can interpret them as denying not that bathing/cutting (of the child) took place, but that "self-bathing"/"self-cutting" took place, namely denying that an event took place whose Agent was the

⁵ All the data we used for our test here is uniformly in the simple past tense; this choice voids BKG's allegation that the Spanish judgments presented in Horvath and Siloni might have been affected in some way by the use of the present perfect instead of the simple past (an allegation that has actually been denied by our own speakers).

child. It must be noted here that the judgment on the negative reflexive sentences (17b)–(18b) is felt by some speakers to be not optimally clear – as these sentences indeed permit also the more straightforward interpretation that no bathing/cutting (of the child) took place at all. But, importantly, the speakers we consulted agree that (17b)–(18b) do not evoke the same clear-cut, strong judgment of being necessarily an untruthful/incoherent statement that is evoked by the case of anticausatives such as (15b).⁶ The above judgments on the Spanish negated anticausative, and its contrast with the judgment on genuine reflexives, are in direct conflict with the prediction of the reflexivization analysis of anticausatives.⁷ The data show that in case of unambiguously non-metalinguistic negation of the anticausative, only the change of state gets denied; no negation of the alleged Causer ('the glass' in (15b)) can be involved, unlike in the case of genuine reflexives (17b)–(18b), where negation of the agenthood of the reflexive subject is an available reading.

Turning to additional evidence in support of the same conclusion, Horvath and Siloni point out that Hungarian can provide a grammatically overt way of recognizing logical negation, which further challenges the validity of Koontz-Garboden's negation-based argument for the reflexivization account of anticausatives. Specifically, Horvath and Siloni present a syntactic difference involving the order between Hungarian verbs and their associated (aspectual) particles.

The argument is based on the widely-known observation that sentential negation denying a proposition in Hungarian requires that the verbal particle (if there is one) appear in a post-verbal position, while in the corresponding (neutral, out of the blue) affirmative it is in pre-verbal position; compare for instance the negated clause in (19), exhibiting necessarily *NEG-V-Prt* order, with its affirmative counterpart (20) below:

Context: *Mi baj van?* 'What's wrong?'

(19) a. *Nem nyílt ki az ajtó.*
not open-INTRANS-PAST PRT the door-NOM
'The door didn't open.'

b. **Nem ki-nyílt az ajtó.*
not PRT-open-INTRANS-PAST the door-NOM

(20) *Ki-nyílt az ajtó.*
PRT-open-INTRANS-PAST the door-NOM
'The door opened.'

Horvath and Siloni point out that in contrast to the above generalization, instances of uncontroversial metalinguistic negation ((16a) of Horvath and Siloni, repeated as (21) below), and importantly, also Koontz-Garboden's negated anticausative test case cited for Spanish (see (11) above) correspond in Hungarian to clauses with necessarily *NEG-Prt-V*

⁶ One might try to insist that the interpretation of falsehood in the above examples is merely due to the impossibility/difficulty for negation to scope over a *sublexical* element (the Cause or Agent role attributed to the subject of an anticausative and reflexive, respectively (in addition to the Theme role)) rather than over an actual overt constituent. But even if one accepted this view and dismissed our Spanish speakers' intuition detecting a difference in judgment between anticausatives versus genuine reflexives, it would still leave one with the conclusion that contrary to Koontz-Garboden and BKG's claim, negation in fact fails to provide a valid diagnostic for the presence of a Causer (the "effector-patient" subject), and where there appears to be evidence in favor of their analysis from negation, it is an illusion due to interference from *metalinguistic* negation.

⁷ Koontz-Garboden points to example (i) below (Koontz-Garboden, 2009:31(78)) as support for his claim that negation detects the presence of a Causer in anticausatives. This negative anticausative is given out of context, i.e., clearly involves a non-metalinguistic use, and Koontz-Garboden observes that the most natural reading for it is that the change of state in fact did take place (the glass did break), and what is denied is "that the glass was the cause of the change into the state".

(i) *No se rompió el vaso por sí solo.*
'The glass did not break by itself'
→ The glass broke

But observe that this example includes the adjunct PP *por sí solo*, unlike the examples he uses in the other cases for his negation-based test. Importantly, it is a well-known independent fact that when occurring in the scope of negation, an adjunct taken most naturally to be the (narrow) focus of the sentence, as in this example, will be interpreted as the constituent being denied. This general fact is shown e.g. by: *The glass didn't break suddenly/in the kitchen/into many tiny pieces*. All these, on their most natural interpretation, entail that the glass broke and deny only the adjunct. So the entailment exhibited by (i) is not evidence in itself for anything relevant with regard to the presence of a Causer in the anticausative. In section 3, we dismissed the claim that *por sí solo* is dependent on a Causer for its licensing.

order, i.e., they require the particle to appear in *pre-verbal* position (Horvath and Siloni's (18b) reproduced as (22b) below), in contrast to negation of a proposition shown in (19a).

(21) Mari nem ki-javít-ott néhány hibát; ő ki-javít-ott minden hibát.
Mari-NOM NEG PRT-CORRECT-PAST several error-ACC she PRT-CORRECT-PAST every error.ACC
'Mari didn't correct several errors; she corrected all errors.'

(22) a. Son: Össze-gyűr-őd-ött az ing-em.
PRT-wrinkle-INTRANS-PAST the shirt-my-NOM
'My shirt wrinkled.'

b. Father: Az ing-ed nem össze-gyűr-őd-ött,
the shirt-your-NOM NEG PRT-wrinkle-INTRANS-PAST

hanem te össze-gyűr-ted.
rather you PRT-wrinkle. TRANS-PAST.it
'Your shirt didn't wrinkle, rather you wrinkled it.'

c. Father#Az ing-ed nem gyűr-őd-ött össze,
the shirt-your-NOM NEG wrinkle-INTRANS-PAST PRT

hanem te gyűr-ted össze!
rather you wrinkle.TRANS-PAST.it PRT

The contrast crucial for Horvath and Siloni's argument was the one between (22b) and the infelicitous (22c). The latter, unlike the former, exhibits the *NEG-V-Prt* order, which is the order found in negation of the truth of propositions (see (19a) above), and this order gives rise to a contradiction, i.e., it is semantically anomalous in the particular context, where Koontz-Garboden's reflexivization analysis predicts it to be possible.

BKG object to Horvath and Siloni's argument involving the ordering of the verbal particle relative to the verb, and enter into a lengthy discussion supporting the well-known and uncontroversial fact that there are a variety of syntactic conditions affecting the relative order of verbs and their particles in Hungarian clauses, rather than just the semantic type of negation. BKG's more specific point by which they aim to challenge Horvath and Siloni's Hungarian-based counter-argument is that there are also instances of logical (non-metalinguistic) negation where the particle appears in pre-verbal, rather than post-verbal position (see BKG's p. 13 ex. (31) given as (23) below); thus, they claim, the *NEG-Prt-V* order in cases like (22b) above cited by Horvath and Siloni does not mean that these must necessarily be instances of metalinguistic negation.

(23) János nem fel-hívta a fiúkat, hanem meg-látogatta őket.
John NEG PRT-called the boys but PRT-visited them
'John did not call the boys up, but visited them.'

Example (23) indeed manifests a contrastive, rather than unambiguously metalinguistic, use of negation: specifically, it is constituent negation involving narrow focus on the *Prt + V* combination, and its replacement by another member of the set of relevant alternatives. It being a narrow *Prt + V* focus construction is evinced also by the fact that (23) is acceptable only when the two contrasting *Prt + V* units bear heavy stress and pitch accent characteristic of narrow focus intonation, while the rest of the clause is deaccented. BKG go on to claim that the pre-verbal placement of the particle in the Hungarian examples (22b) and (23) is a syntactic consequence of the fact that the negative *nem* occurs in these examples in the *nem . . . hanem . . .* 'not X but Y' construction. Specifically, following É. Kiss (2002), they assume that "the *nem* that occurs with *hanem* sits in a higher position than sentential negation *nem*" (BKG, p. 13), and this is what enables the pre-verbal placement of the particle.⁸ Given the objection raised by BKG, let us clear up the picture and distinguish

⁸ BKG fail to note that parallel to the English contrastive 'not X but Y' construction, Hungarian *nem . . . hanem . . .* is a construction of contrastive constituent negation, which is also a most common context for metalinguistic negation (see also Horn's (1985) discussion of this contrastive *but* construction in English as characteristic of metalinguistic negation).

between what is and what is not crucial for the negation test, and for the Hungarian-based counter-argument to go through.⁹

Relying on contrastive narrow (Prt + V) focus examples such as (23), BKG infer that the *NEG-Prt-V* order in the *nem...hanem...* construction (22b) does not show that the negation involved is necessarily metalinguistic, and on these grounds declare the verb particle-based counter-argument inconclusive. However, we submit, the latter conclusion is premature. To do justice to the case of Hungarian negation as a potential test for the reflexivization account of anticausatives, let us examine the behavior of negated anticausatives when they occur not within the *nem...hanem...* construction. Specifically, we consider below the case of unambiguous sentential negation denying a proposition, rather than constructions used to negate a constituent and correct/replace it by an alternative.

Crucially, in cases of sentential negation the only possible order is uncontroversially *NEG-V-Prt* (as seen in (19a–b) above). Recall further that under Koontz-Garboden’s reflexivization analysis of anticausatives, the sentential negation of the anticausative clause (asserting the falsity of the anticausative proposition) should be semantically compatible with (in no contradiction to) the truth of its causative version. Therefore, the reflexivization hypothesis predicts that a negated anticausative with *NEG-V-Prt* order should be felicitous in cases like (24). This prediction turns out to be clearly false.

- (24) a. Context: You know that *Mari összegyűrte a párnahuzatot* ‘Mari wrinkled the pillowcase’; given this, would you be lying (or incoherent) if you stated (24b)?
- b. #A párnahuzat nem gyűr-őd-ött össze / #Nem gyűrődött össze a párnahuzat
the pillowcase-NOM NEG wrinkle-INTRANS-PAST PRT
‘The pillowcase didn’t wrinkle.’

Logical negation, indicated unambiguously by the *NEG-V-Prt* order in Hungarian (24b), is not possible for the anticausative in the relevant context. Note that in Hungarian too, the anticausative (24b) contrasts with the uncontroversial reflexive verb in the parallel example (25b) below; the latter is perfectly felicitous in the same kind of context.

- (25) a. Context: You know that *Mari megfésülte a kislányt* ‘Mari combed the little girl’; given this, would you be lying (or incoherent) if you stated (25b)?
- b. A kislány nem fésül-köd-ött meg.
the little-girl-NOM NEG comb-INTRANS-PAST PRT
‘The little girl didn’t comb herself.’

To sum up the above discussion, we have confirmed that the negation evidence of Koontz-Garboden is flawed, based on all three languages considered above.¹⁰ The argument and related data fail to show that the anticausative is not entailed by the causative, and thus provide no support for the presence of a Causer in the anticausative. Our testing of unambiguously non-metalinguistic negation in Spanish, as well as in English and Hungarian, supported the opposite conclusion: the causative does entail the anticausative. This contradicts the reflexivization account.

⁹ BKG also mention in passing an additional objection regarding the Hungarian case; namely, they hint that the verbs used may not be derived anticausatives in Hungarian but what they call “lexical”, i.e., underived inchoatives, which would not fall under their reflexivization analysis, and need not have a Cause role. But such a claim is not tenable under BKG’s own assumptions: the Hungarian anticausatives used by Horvath and Siloni (and in (22) above) license the Hungarian counterpart of the Spanish *por sí solo* “by itself” occurring in anticausatives (see *magától* in (i)). The *por sí solo* evidence is featured in BKG as evidence for their subject being a Causer (namely, an “Effector-Patient”). (For our critical discussion of the ‘by itself’ evidence, see section 3.)

(i) Az ingem magá-tól gyűr-őd-ött össze.
the shirt-my-NOM itself-from wrinkle-INTRANS-PAST PRT
‘My shirt wrinkled by itself.’

¹⁰ Regarding Hebrew, BKGs discussion (their section 4.3) is based on citing unsystematic, tentative and variable judgments of problematic data. They all involve addition of NPIs; see our remark on top of p. 7 dismissing the use of NPI data in the test under discussion due to the confounding problems it introduces, as recognized by BKG too. Further, the Hebrew data of BKG’s section 4.3 suffers from various additional problems, such as for instance: some of the verbs introduced by BKG (e.g. p. 15 ex.(35)–(36)) *tasas* ‘ferment’, *navat* ‘sprout’) are marginal with an inanimate subject even independently of the test context they appear in. As for using the unambiguously non-metalinguistic test we propose and apply in the text above, the judgments obtained in Hebrew turn out to be parallel to those documented above for English, Spanish and Hungarian (we do not present them here due to space limitations).

5. Cause PP-adjuncts: Greek *apo*

Another argument in support of the reflexivization analysis of anticausatives used by Koontz-Garboden and defended in BKG is based on a particular subtype of cause adjunct PPs. This subtype is claimed specifically to be instantiated by a particular P in a single language, namely by the preposition *apo* of Greek in its causative use. Koontz-Garboden and BKG observe that this preposition is not compatible with statives, but occurs with anticausatives. From this they conclude that such PP adjuncts must be dependent on the existence of causation in the verb's lexical semantics, and thus constitute "true diagnostics of cause in a verb's meaning" (bottom of p. 16; see also their note 14). Further BKG claim that the English *from* and its Hebrew counterpart *me-*, which are referred to by Horvath and Siloni as occurring with statives too, are of a different type of cause adjuncts: they "introduce rather than probe for causation" in the meaning of the predicate they modify, so these, unlike *apo*, are irrelevant for the purpose of diagnosing a cause element. Let us assume then that indeed this is the relevant distinction between cause PPs in the two types of languages, and proceed, considering only the Greek case (*apo*), which Koontz-Garboden and BKG cite as providing evidence relevant for the issue at hand. Though it may be a curiously isolated case, it is not uncommon that limited, even truly peripheral, phenomena provide clues to scientific discoveries. Accordingly, we should examine more closely the validity of the *apo*-based argument, and see what exactly the observed behavior of this Greek cause preposition may provide evidence for.

First, the logic behind this argument cannot stand up to scrutiny in the absence of additional facts being established. Showing that some particular cause PP cannot occur with statives, as Greek *apo* is alleged to behave, by no means entails that it must be licensed by some causal element, i.e., that it must depend on the presence of a Causer or at least a causing event, present in the sentence. Observe that the non-occurrence of *apo* adjuncts with statives could in principle be due to whatever other differences there are between statives and anticausatives; for instance the latter denotes change of state, the former does not, aspectually, one is an event the other is a state. Thus an equally plausible, in fact less stipulative, claim would be to attribute the observed restricted distribution of Greek causative *apo* to it being limited to modifying only events (telic eventualities), not states (for a proposal that the source of causative semantics is in fact telic event structure, see e.g., Schäfer, 2008). This may or may not be the correct generalization, but it would at least need to be explored further before reaching an alternative conclusion. Merely pointing to the impossibility of the occurrence of the causative *apo* PP with statives and its occurrence with anticausatives thus does not suffice to establish the presence of a Causer, or any other causation element, in the lexical-semantic (or syntactic) representation of anticausatives.

Beyond its failure to support the presence of causal meaning in the representation of anticausative verbs, the case of *apo* PPs turns out, on closer inspection, to provide evidence arguing specifically against the reflexivization proposal. Koontz-Garboden and BKG's reflexivization analysis leads us to expect that the causative alternate should be able to occur with *apo* PPs no less than its derived anticausative. The reason for this is that under reflexivization both the causative and the anticausative alternates would have an argument with a Cause role (not only a causal meaning) present in the clause, so there is no reason why *apo* should not behave uniformly with regard to both. This prediction however is clearly not borne out. As is shown by the Greek data in (27) below, the causative alternates prohibit the addition of an *apo* adjunct PP, in contrast to the corresponding anticausatives (26) (thanks to Phoevos Panagiotidis for the Greek data).

- (26) a. I porta espase apo ton anemo / apo tin kateyida.
'The door broke from the wind/from the storm.'
- b. I porta espase apo to apotomo klisimo.
'The door broke from the abrupt closing.'
- (27) a. O anemos espase tin porta (*apo tin kateyida).
'The wind broke the door (from the storm).'
- b. I kateyida espase tin porta (*apo ton anemo).
'The storm broke the door (from the wind).'
- c. O anemos espase tin porta (*apo to apotomo klisimo).
'The wind broke the door (from the abrupt closing).'

The fact that the *apo* PP occurring with anticausatives fails to appear with their causative counterparts (see (27)) suggests that the cause adjunct PP must be ruled out when an argumental Causer is present in the clause. This in turn means that the distribution of *apo* PPs not only could not support the reflexivization analysis but may in fact argue against it, as reflexivization crucially assumes a Causer to be present in the anticausative as well (namely, the Causer-Theme subject). Thus, the crucial fact is that the Koontz-Garboden/BKG account of anticausatives would require incorporation of the following curious stipulation: A cause *apo* PP cannot be added when the verb has a Causer ("Effector") argument

present in the clause unless that Causer argument is also the Theme (i.e., a Causer-Theme). This would be a totally ad hoc stipulation: it would essentially amount to admitting (at least with regard to Greek) that anticausatives behave as having no Causer argument present, in direct contradiction with the reflexivization proposal.¹¹

6. Conclusion

In the above sections we have shown that the objections and counterarguments presented by BKG against Horvath and Siloni's criticism of the reflexivization analysis of anticausatives do not hold up under closer scrutiny. Not only do they not void the criticism of the analysis brought up by Horvath and Siloni, but the present investigation of some additional evidence, involving "by itself", unambiguously non-metalinguistic (sentential) negation, and the distribution of cause adjunct PPs (Greek *apo*), has further confirmed that no Causer is present in anticausatives. Hence the reflexivization analysis must be wrong. This conclusion leaves the option of either a causativization analysis – deriving the causative alternate by addition of a Causer to a verb/root (and internal argument) – or deriving the anticausative by *reduction* of the Cause role via a lexical operation. (For refutation of BKG's criticism of the latter operation, see the [Appendix](#).)

Importantly, Koontz-Garboden/BKG's reflexivization proposal is also conceptually undesirable. The analysis they defend involves a non-uniform treatment of the causative–unaccusative alternation, splitting the verbs exhibiting the alternation into two entirely different classes, each with a different derivational history and representation. Moreover the assumed split is claimed to correspond to the presence versus absence of a particular productive morphological marking exhibited also by reflexive verbs. The anticausative alternates marked by the so-called reflexive morpheme are hypothesized to be derived by a reflexivization operation, an operation that is assumed not to play a role in accounting for the rest of alternating causative–unaccusative pairs (nor for non-alternating unaccusatives). This first of all misses the generalization that a robust set of well-known core properties are shared by the two kinds of unaccusatives, within and across languages. Some such properties, cutting across the two alleged classes of unaccusatives, have been further confirmed by our own evidence above. Secondly, it is not the case that the morphology appearing in anticausatives renders them a natural class with reflexives. In fact the same morphology is shared by passives and middles, among others; so there clearly is no way to construe this morphology to be a signal of the reflexivization operation. What these various diatheses do seem to share is their having one argument less than their transitive alternates, in the syntax (see section 2 and [Appendix](#)).

Given the conceptual undesirability of the view defended in BKG, it is a reassuring outcome that a close empirical investigation reexamining the actual evidence enlisted for the reflexivization analysis of anticausatives turns out to invalidate it.

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Appendix. A note on decausativization

An alternative approach advancing the same directionality of derivation as the reflexivization approach (anticausatives derived from their transitive alternates) is the *decausativization* approach, by which the formation of intransitive unaccusatives reduces the Cause role altogether (not just syntactically) (Reinhart, 2002; Horvath and Siloni, 2011b, among others). The advantages BKG attribute to their own analysis, which we discarded in section 2, are the theoretical objections they raise against the reduction approach. Below we show that in fact these are not problems at all for the reduction (decausativization) approach.

First, BKG argue that reduction does not explain why anticausatives and reflexives show in many languages the so-called reflexive morphology. As discussed in section 2, this morphology is not limited to marking reflexives and unaccusatives only, but appear also with other diatheses that are clearly not derived by any sort of reflexivization. Hence, it is desirable not to associate this morphology with the reflexivization operation. As already mentioned, what is common to the diatheses

¹¹ Alexiadou et al. (2006) and related work considered the *apo* adjunct facts only as (potential) evidence for a Cause head in the representation of anticausatives, the adjunct PP being the added Causer modifying the syntactic Cause head. They were not assuming a Causer argument for the anticausative clause. In fact it was stipulated that the *apo* adjunct is possible only if no Causer argument is introduced in the structure (specifically, Alexiadou et al. claimed that a Cause head but no Voice head is present in anticausatives, thus capturing the absence of an argumental Causer).

showing this morphology is that they have one syntactic argument less than their transitive alternate. This is what led many scholars to argue that the so-called reflexive morphology tends to mark reduction of syntactic valence (Grimshaw, 1982; Wehrli, 1986; Rappaport Hovav and Levin, 1998; Reinhart and Siloni, 2005; Siloni, 2012, among others). Under the decausativization approach, the formation of unaccusatives indeed involves reduction of syntactic valence.

Second, reduction is incongruous with the Monotonicity Hypothesis, by which operations on lexical semantics cannot delete meaning, only addition is possible (Koontz-Garboden, 2009). As explained in section 2, monotonicity is a stipulation, not a fact about lexical operations. There is no a priori reason why lexical operations should disallow deletion of information: among proponents of lexical operations, some (or many) would also take the derivation of say result nominals or adjectival passives to involve loss of lexical information. In section 2 above we offered some speculation as to what the assumption underlying the monotonicity claim may be, and discarded it.

Third, according to BKG, reduction does not explain why only verbs with a Cause role have an unaccusative alternate. In Horvath and Siloni (2011c) however, we do provide an explanation as to why reduction applies to the Cause role only. We argue that there are good reasons to assume a general cognitive ban that makes it impossible for the language faculty to disregard the feature [+human]. As a consequence of this cognitive ban, conceptualization of eventualities cannot eliminate participants whose mental state is relevant to the eventuality. Independent evidence in support of this general ban can be found in the domain of metaphoric transfer and idioms. The ban helps resolve the puzzle as to why human-denoting arguments are largely unattested in idioms (Horvath and Siloni, *in press*).¹² Since under the ban, no grammatical operation can eliminate the [+human] feature, it immediately follows that only Cause, but not Agent is reduced (deleted) by the operation under discussion.

References

- Alexiadou, A., Anagnostopoulou, E., Schäfer, F., 2006. The properties of anticausatives crosslinguistically. In: Frascarelli, M. (Ed.), *Phases of Interpretation*. Mouton de Gruyter, Berlin, pp. 187–211.
- Beavers, J., Koontz-Garboden, A. In defense of the reflexivization analysis of anticausatives. *Lingua*, *in this issue*.
- Chierchia, G., 2004. A semantics for unaccusatives and its syntactic consequences. In: Alexiadou, A., Anagnostopoulou, E., Everaert, M. (Eds.), *The Unaccusativity Puzzle: Studies on the Syntax–Lexicon Interface*. Oxford University Press, Oxford, pp. 288–331.
- É. Kiss, K., 2002. *The Syntax of Hungarian*. Cambridge University Press, Cambridge.
- Grimshaw, J., 1982. On the lexical representation of Romance reflexive clitics. In: Bresnan, J. (Ed.), *The Mental Representation of Grammatical Relations*. MIT Press, Cambridge, MA, pp. 87–148.
- Haspelmath, M., 1993. More on the typology of inchoative/causative verb alternations. In: Comrie, B.B., Polinsky, M. (Eds.), *Causatives and Transitivity*. John Benjamins, Amsterdam, pp. 87–120.
- Horn, L., 1985. Metalinguistic negation and pragmatic ambiguity. *Language* 61, 121–174.
- Horvath, J., Siloni, T., 2011a. Anticausatives: against reflexivization. *Lingua* 121, 2176–2186.
- Horvath, J., Siloni, T., 2011b. Causatives across components. *Natural Language and Linguistic Theory* 29, 657–704. <http://dx.doi.org/10.1007/s11049-011-9135-3>.
- Horvath, J., Siloni, T., 2011c. Verb representations and the architecture of grammar. Paper delivered at the Approaches to the Lexicon (Roots III) Workshop. Hebrew University of Jerusalem, June 13–16, 2011.
- Horvath, J., Siloni, T. The thematic phase and the architecture of grammar. In: Everaert, M., Marelj, M., Reuland, E., Siloni, T. (Eds.), *Concepts, Syntax and their Interface*. MIT Press, Cambridge, MA, *in press*.
- Koontz-Garboden, A., 2009. Anticausativization. *Natural Language and Linguistic Theory* 27, 77–138.
- Levin, B., Rappaport Hovav, M., 1995. *Unaccusativity: At the Syntax Lexical Semantics Interface*. MIT Press, Cambridge, MA.
- Mendikoetxea, A., 1999. Construcciones inacusativas y pasivas. In: Bosque, I., Demonte, V. (Eds.), *Gramática Descriptiva de la Lengua Española*. Editorial Espasa, Madrid, pp. 1575–1629.
- Nunberg, G., Sag, I., Wasow, T., 1994. Idioms. *Language* 70, 491–538.
- Rappaport Hovav, M., Levin, B., 1998. Morphology and lexical semantics. In: Spencer, A., Zwicky, A.M. (Eds.), *The Handbook of Morphology*. Blackwell Publishers, Oxford, pp. 248–271.
- Reinhart, T., 2002. The theta system: an overview. *Theoretical Linguistics* 28, 229–290.
- Reinhart, T., Siloni, T., 2005. The lexicon-syntax parameter: reflexivization and other arity operations. *Linguistic Inquiry* 36, 389–436.
- Schäfer, F., 2008. Two types of external argument licensing: the case of causers. Paper delivered at GLOW 31, Newcastle.
- Siloni, T., 2012. Reciprocal verbs and symmetry. *Natural Language and Linguistic Theory* 30, 261–320.
- Wehrli, Eric., 1986. On some properties of French clitic *se*. In: Borer, H. (Ed.), *The Syntax of Pronominal Clitics*. Academic Press, San Francisco, pp. 175–217.

¹² As observed by Nunberg et al. (1994): (i) Idioms describe abstract situations. (ii) Animates (more precisely, according to our investigation, humans), being concrete entities, can hardly refer to abstract situations. It follows that human arguments do not participate in idioms, since on the one hand, they cannot describe abstract situations (which is required by idioms), and on the other hand, due to the proposed cognitive ban, their [+human] nature cannot be disregarded (deleted).