This article explores the interpretation of the so called English ‘by itself’ phrase and its counterparts in German, Greek and Italian. These phrases are typically found modifying anticausative/unaccusative verbs. It has been argued that the interpretation of these phrases supports an analysis of anticausatives/unaccusatives as reflexive predicates (Chierchia 1989, 2004). It is shown that the English ‘by itself’ phrase (as well as its counterparts in Italian, German and Greek) does not carry the interpretation argued for by Chierchia. ‘By itself’ does not refer to the causer of a change-of-state event but instead it denies that there exists a causer for the change-of-state event it modifies. This argues against an analysis of anticausatives/unaccusatives as involving an external theta role (causer) and in favour of a purely inchoative/intransitive analysis. Arguments for this conclusion come on the one hand from a closer inspection of the contexts which license ‘by itself’ modifying anticausatives as well as from the observation that ‘by itself’ is by far not restricted to modify only anticausative/unaccusative predicates but can be found crosslinguistically modifying predicates which arguably do not involve an external causer argument. Finally, a preliminary/informal proposal is made how the meaning of the German ‘by itself’ phrase (von selbst) can be derived from its parts, the passive by-phrase ‘von’ and the intensifier ‘selbst’ by following a proposal in Eckhardt (2001) that ‘selbst’ (itself) denotes an identity function.

1. Introduction

Chierchia (1989, 2004) proposes an analysis of unaccusatives as reflexives. A consequence of this analysis is that the sole argument of unaccusatives should be associated not only with the semantic role of an internal argument (theme), but also with the semantic role of an external argument (causer). Chierchia claims that, in Italian, the idiomatic anaphor da sé, the counterpart of the English by itself phrase, is a way to successfully test this prediction. Da sé is a modifier built up by a preposition and a reflexive clitic. It occurs in an adjunct position and, as Chierchia claims, it is necessarily bound by an external argument with the theta role agent or causer as in (1). Since other types of external arguments cannot license this phrase the sentences in (2) are bad. Chierchia argues that the interpretation of da sé is that “… its antecedent must be construed as the sole cause of the event under consideration”. In sentence (1), the contribution of da sé is therefore “that Gianni is the only agent of the hitting” (Chierchia 2004:42).

(1) Gianni mi ha picchiato da sé
    Gianni hit me by himself
(2) a. *Gianni conosce il latino da sé
    Gianni knows Latin by himself
b. *Gianni ha sudato da sé
    Gianni sweat by himself

Following Chierchia, the restriction that da sé needs an agent or causer subject as its antecedent is also the reason why this phrase is not licensed in passives; the only (overt) antecedent available in the passives in (3) is a theme.

(3)...
Anticausatives on the other hand do license the *da sé phrase (cf. 4); following the above argumentation, Chierchia concludes that an external argument is present in anticausatives. This is exactly the prediction of the analysis of anticausatives as reflexives: the theme argument is at the same time the causer of the change of state and as such it binds the reflexive adjunct *da sé.

Since the first version of Chierchia’s paper in 1989 the *da sé test (English: *by itself test) has become one of the standard tests to differentiate between passives and anticausatives, especially because it gives identical results across languages. The common conclusion read from the results of the *by itself test is that passives have an implicit external argument while anticausatives do not. The theoretical assumptions behind the test results however differ. Within Chierchia’s theory passives have an implicit covert external argument and anticausatives have an explicit overt external argument and the *da sé/*by itself phrase needs an overt external argument as antecedent. Others (e.g. Levin & Rappaport Hovav (1995), see the discussion below) assume instead that anticausatives have no external argument and that *by itself does not relate to a syntactically represented causer but that it either relates to a causer that is only conceptually present or that it can even introduce a causer relation (Folli 2002). For these authors the *by itself phrase is not licensed in passives because the implicit external argument in passives blocks the job which *by itself ought to do, and anticausatives are compatible with *by itself because there is no external argument represented that could block the job *by itself wants to do. Below, I will critically review both types of accounts; it turns out that neither of them can do full justice to the empirical behaviour of *by itself and its counterparts in other languages.

2. The meaning of *by itself: some objections against earlier proposals

A first problem with Chierchia’s account was identified by Folli (2002). As she mentions, Chierchia’s view would leave unexplained the fact that the two sentences in (5a) and (5b) receive quite different interpretations: “… the first one describes an event with no explicit causer, but it would nevertheless be compatible with the existence of an external causer. The sentence could be used to describe the sinking of the boat in a scenario where we know that John was responsible for it. [5b], on the other hand, is not compatible with the existence of an external causer” (Folli 2002:80f.).

But in Chierchia’s account, in both cases *the boat sanctions the role of the causer of the event itself. The difference is only that this this is made more explicit in (5b) via the addition of *by
itself. We might even say that under Chierchia’s analysis the use of the by itself phrase would be quite uninformative because what is expressed by the adjunct phrase is already expressed by the anticausative/reflexive construction itself. We might ask therefore why a speaker should use the by itself phrase and stress that the theme is at the same time the causer of the event if this is already expressed by the very nature of the anticausative construction itself.

Levin & Rappaport-Hovav (1995) fare better with the interpretative difference between (5a) and (5b) as they assume that by itself modifies a cause which is not syntactically represented and, given its anaphoric nature, identifies this cause as being identical to the theme argument. In their theory, anticausatives are derived from causatives by an operation which “lexically binds” the external argument at the level of Lexical Conceptual Structure (LCS). The external argument is present at the LCS but not at the level of argument structure and syntax. While the external argument and the internal argument normally are conceptualized as two different entities at the LCS, the da sé phrase identifies the theme with the external argument of the LCS. This derives that there is an interpretative difference between (5a) and (5b).

However, Levin & Rappaport-Hovav explicitly predict that by itself or da sé should only be licensed in the context of an LCS with a causer theta role which is not projected to the syntax, that is, in the context of unaccusative verbs which have a causative counterpart. As also observed by Folli (cf. also Pinon 2001 for English) this prediction is not borne out. The da sé phrase is also licensed with verbs which do not participate in the causative alternation. Agentive intransitive verbs as in (6) are a case in point. (We will come back to the exact interpretation of such examples below).

(6) Gianni ha camminato da sé
    John walked by himself

Folli also mentions that unaccusative verbs without a transitive counterpart license da sé (e.g. crescere (grow), salire (go up), scoppiare (burst), ...). From this set of data she concludes that da sé either picks up a causer/agent argument present at all levels of representation (as in 6) or adds such an argument (as in 4 or 7). 2/3

(7) Gianni è salito da sé
    John went up by himself

But this dual characterization of the job done by the da sé phrase has also been criticized. Koontz-Garboden (2006) argues that it cannot be correct, as it leaves unexplained why the addition of causative entailments is limited and not possible in structures as in (2a, b).

1 The same prediction is made by Reinhart (2000). Reinhart also criticizes Chierchia’s view that by itself identifies the theme with the causer argument of the change of state event. She correctly points out that the most natural context in which this phrase is used is “if I (or someone I care to defend) was just accused for being responsible for these events, or if someone suggests an implausible natural cause for the relevant event” (Reinhart (2000:28). That is, similarly to what is proposed in this paper, the by itself phrase negates that there is a causer for the modified event. However, Reinhart further argues that this is possible only in the context of concepts (i.e. verbal entries in her theory) that involve a causer role [+c]. Thereby she predicts exactly as Levin & Rappaport-Hovav (1995) that by itself is only possible in the context of anticausatives which are lexically derived from such contexts.

2 Notice that Reinhart would assume that unaccusative verbs as in (7) are also conceptually related to a causer.

3 Similarly Härtl (2003:895) argues that „modification with a reflexive by-phrase can reintroduce the causal component into the semantic representation of decausative verbs“.
In the next sections, I argue that this criticism is on the right track. Da sé is not necessarily bound by an agent or causer, it also does not identify a causer present at the LCS of a verb with the theme of the verb, nor does it introduce a causer role into the semantic representation of the predicate it modifies.

3. The meaning of by itself: a crosslinguistic sample

Contexts licensing by itself

Levin & Rappaport-Hovav (1995) claim that English by itself is ambiguous between two readings: one is meaning “alone”, the other is meaning “without outside help”. They further mention that in the context of anticausatives only the latter reading is relevant. Recall that Chierchia argues that Italian da sé is interpreted identically in causatives and in anticausatives and that it expresses “that its antecedent must be construed as the sole cause of the event under consideration” (I will call this the “sole cause” reading from now on). We might ask whether Chierchia’s interpretation of da sé could be identified with one of the readings that Levin & Rappaport-Hovav propose for English by itself.

In what follows, I will show that Italian da sé and English by itself have two interpretations. I propose that the first reading these phrases have is “alone” as Levin & Rappaport-Hovav argued. But the second reading is neither “without outside help”, nor that the antecedent is the “sole cause”. In contrary, I propose that by itself (and its counterparts in other languages) expresses that its antecedent has not been caused by any force (be it a human agent or an inanimate causer) participating in the event described by the modified predicate. By itself therefore denies the existence of an ‘outside causer’, i.e. a causer which acted on the antecedent of by itself. I will call this the “without outside force” reading in analogy to the “without outside help” reading proposed by Levin & Rappaport-Hovav (1995) and the “sole cause” reading proposed by Chierchia (2004).

The only formal requirement that by-itself has to satisfy is that it must be anteceded by the structural subject of a predicate; there is no restriction on the antecedent’s theta role and therefore no restriction on the kind of predicate modified by by itself. However, because of its semantics, the addition of by itself is pragmatically only licensed if the existence of a causer (causing the modified event with the antecedent taking part in it to take place) would in principle be possible and make sense. Since anticausatives express events which by their very nature can alternatively occur also with a causer (causatives), anticausatives license by itself quite freely. As I will show, other predicates license it to the extent that the context makes it at least conceivable that the event expressed by the predicate and its argument(s) could be caused, e.g. if the presence of such a causer is contextually salient. As Chierchia himself notes, under such circumstances even an ungrammatical sentence as (2b)(repeated in (8B) becomes acceptable. (Chierchia did not interpret the data this way but assumed that the sentence in (8A) makes it more conceivable that in (8B) Gianni is understood as the causer of its own sweating.)

(8)  A: Tu hai fatto sudare Gianni  
     ‘You made Gianni sweat’
     B: No, ha sudato da sé  
     ‘No, (he) sweat by himself’

Cf. Pylkkänen (2002) who proposes for the Japanese counterpart of by itself (katteni) the meaning ‘without a cause’.
In order to establish the proposed interpretation of *da sé*, I will discuss the behaviour and the licensing conditions of its counterparts in a number of languages. In section 3.1, I discuss German *von selbst*, in section 3.2, I discuss Greek *apo mono tu*, in section 3.3, I turn back to Italian *da sé* and in section 3.4, I turn back to English *by itself*. In section 4, I give an explanation of how the meaning of *by itself* can be derived from its parts (the preposition *by/von* and the intensifier *SELBST / pronoun-SELF*) at least in German and English.

3.1 German

The German counterpart of *by itself* is *von selbst* (by self). This phrase does not contain a (reflexive) pronoun but only the intensifier *selbst* which is used to intensify either full DPs, pronouns or reflexive pronouns. An example where *selbst* optionally intensifies a reflexive pronoun is given in (9a). An example of the German *by itself* phrase with anticausatives is given in (9b).

Note that in the latter case the addition of a reflexive pronoun in the *von selbst* phrase leads to ungrammaticality.

(9)  a. Hans hat sich (selbst) fotografiert  
    Hans has Refl (self) photographed
   
   b. Die Vase zerbrach von selbst/*von sich selbst
   The vase broke       by self    / by REFL self

Besides anticausativesm, *von selbst* is also licensed in transitives (10a). Passives as (10b) on the other hand sound quite unnatural with the phrase. These data suggest that *von selbst* has the same behaviour as its counterpart in Italian. Using Chierchia’s explanation, the vase in (10b) binds the *von selbst* phrase, but since the vase is neither an agent nor a causer, the result is deviant. In (9b) and (10a) on the other hand *von selbst* is bound by a causer or an agent respectively and the result is fine.

(10)  a. Hans zerbrach die Vase von selbst
    Hans broke the vase by self
   
   b. *Die Vase wurde von selbst zerbrochen
    The vase became by self broken

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5 Gülzow (2006) makes similar observations about German and English *‘by itself/von selbst’* and arrives at similar conclusions about its meaning.

6 As an alternative without any differences in meaning or use *von allein* (by alone) can also be used.

7 If the implicit external argument of a passive is expressed overtly in the by phrase as in (i) the addition of *von selbst* is marked but acceptable for me. However, not all speakers of German accept such structures. For me (i) has an interpretation similar to (10a), that is *von selbst* is interpreted as modifying the implicit agent expressed in the passive by-phrase. An explanation for the fact that the German by-phrase can antecede *von selbst* at least for some speakers but not its counterparts in other languages might be related to the fact that *von selbst* does not contain a reflexive pronoun. A search with Google brought up even passives without a by-phrase licensing *von selbst*. Such examples do not corroborate the judgement in (10b) because they are comparable to examples with a by-phrase. In (ii) (as well as in the other relevant examples found in Goolge) *von selbst* is anteceded by the implicit argument of the passive. This is possible because the sentence makes it clear what the implicit argument is. In (ii) this is necessarily a computer.

(i)  Die Vase wurde von Hans von selbst zerbrochen
    The vase was by Hans by self broken

(ii) Der Drucker im Netzwerk wurde von selbst gefunden und eingerichtet.
    ‘the printer in-the network was by self found and installed’
It is important to note that German *von selbst* is unambiguous. Specifically, it cannot mean “alone” (in the sense of ‘unaccompanied’). But it also cannot mean “without outside help”. To see this, we start from a transitive/causative sentence which is modified by *von selbst* in (11) and check what continuations are acceptable. As the examples in (12a-c) show, continuations with sentences that negate that the subject in (11) was in company of someone or was helped or supported by someone are judged as inappropriate by speakers of German. We can conclude that German *von selbst* does not carry the information that its antecedent acted “alone” or “without outside help”. On the other hand continuations of the sentence (11) as in (13) are judged as grammatical by speakers of German. These sentences negate that the agent of sentence (11) was forced, caused or asked by anyone or anything to do the action he does in (11). This means that the interpretation of German *von selbst* in causative sentences is that it negates that the agent of the sentence (its antecedent) is the agent of the sentence due to some causal factor. It stresses that there is no causal chain leading from some super-event to the agent role of its antecedent.

(11) Hans hat die Vase von selbst zerbrochen
    Hans has the vase by self broken

(12) a. #Niemand hat mitgemacht
    nobody has with-made/taken part

   b. #Niemand hat ihm dabei geholfen
    nobody has him this-with helped

   c. #Niemand hat ihn dabei unterstüzt
    nobody has him this-with supported

(13) a. Niemand/nichts hat ihn dazu veranlasst
    nobody/nothing has him this-to caused

   b. Niemand hat ihn dazu gezwungen
    nobody has him this-to forced

   c. Niemand hat ihn darum gebeten
    nobody has him therefore asked

The same can be shown with sentences where the *von selbst* phrase is negated. Apart from the negation of *von selbst* the sentence in (14) is the German translation of the original sentence from Chierchia in (1). As (15) and (16) show, we get comparable acceptability judgements as above. Sentences that claim that the agent in (14) was “accompanied” or “helped” by someone are judged as inadequate, sentences which claim that the agent of (14) was not the highest agent but acted as the response of some higher causer/agent in a super-event acting on him are judged as coherent.

(14) Hans hat Peter nicht von selbst geschlagen
    Hans has Peter not by self hit

(15) a. #Maria hat mitgemacht
    Mary has with-made/taken part

   b. #Maria hat ihm dabei geholfen
    Mary has him this-with helped

   c. #Maria hat ihn dabei unterstützt
    Mary has him this-with supported
Mary has him this-with supported

(16) a. Marias/Peters fieses Verhalten hat ihn dazu veranlasst
    Mary’s/Peter’s mean behaviour has him this-to caused

b. Maria hat ihn dazu gezwungen
    Mary has him this-to forced

c. Maria hat ihn darum gebeten
    Mary has him therefore asked

We can also show that German von selbst cannot mean “alone” by replacing it with the adverb allein (alone) in (17). This results in exactly the opposite judgements than we saw with von selbst in (11-13).

(17) Hans hat die Vase allein zerbrochen
    Hans has the vase alone broken

(18) a. Niemand hat mitgemacht
    nobody has with-made/taken part

b. Niemand hat ihm dabei geholfen
    nobody has him this-with helped

c. Niemand hat ihn dabei unterstützt
    nobody has him this-with supported

Next we will see that German von selbst is not necessarily anteceded by an agent or causer. Even stative sentences as (2a) can license von selbst under the right contextual circumstances and these circumstances are exactly those which we expect under the meaning of von selbst proposed here; von selbst is acceptable with stative verbs if it makes sense to focus the fact that the holder of the state was (or was not) caused to be the holder of the state by any force, that is that a causal change did (or did not) lead from a super-event to the stative relation. This is shown by the sentences in (19a) and (20a) which are totally acceptable if they are continued by (19b) and (20b) respectively.¹

(19) a. Maria hat die Antwort von selbst gewusst
    Mary has the answer by self known

b. Niemand musste ihr einsagen
    no one had to whisper her

¹ This kind of example further hints at the pragmatic nature of the negation expressed by von selbst. Obviously Maria must have learned the answer from some external source at some time in order for (19) to be true. But von selbst focuses on a particular occasion (an exam), which leads to a stage-level state of knowing the answer and stresses that the state of knowing the answer was not caused at this occasion.
Finally, perception verbs like *sehen* (see), mental verbs like *begreifen* (comprehend) and even experiencer verbs like *lieben* (love) can be modified by *von selbst*, if the right context is chosen. The examples in (21) are authentic examples from Google. Note that in the examples a and c the context explicitly states that the antecedent of *von selbst* was not/cannot be forced by anyone to stay in the external argument relation with its verb. This fits exactly with the meaning proposed above for *von selbst*.

(21)  

   By self have I also hardly in books seen. We were also not urged, books to read.  
   “I hardly looked in/read any books by myself/without outside force”. We were also not urged to read books.”

b. Wer Augen hat zu sehen, der begreift *von selbst*: Kapital will arbeiten, will zirkulieren.  
   who eyes has to see, he comprehends by self: capital wants work, wants circulate  
   “If you have eyes to see you will understand by yourself/without outside force: money wants to work, wants to circulate.”

c. Erstens man kann keinem Gefühle aufzwingen, man muss den anderen *von selbst* lieben und nicht nur, weil ihm die Gefühle ”aufgezwungen” wurden.  
   first one can no-one feelings impose, one needs the other by self love and not only, because him the feelings imposed were  
   “You can’t impose feelings on anyone: one has to love the other by oneself/without outside force and not just because one was forced to have these feelings.”

To conclude, German *von selbst* neither means “alone” nor “without outside help”. Since it is not restricted to causative contexts but also licensed with experiencer, perception and stative verbs, it cannot be the case that its meaning is that its antecedent is the “sole cause” in the event. Instead, the specific contexts that license *von selbst* in all these environments suggest that *von selbst* stresses that the role its antecedent plays in the event or state expressed by the predicate is not caused by anything; there is no causal super-event leading to the modified proposition.

Notice that this semantics can reasonably be assumed to hold in anticausatives, too. Here the phrase stresses that the role played by its antecedent (the theme) in the event was not caused by any force; that is the theme takes part in a change-of-state event which has no causer. Notice that the negation of the existence of a causer of a change-of-state event does not mean that we cannot find a causal explanation for the event. It is of course true that each event has an ultimate causal explanation in the physics of the world, but it is also true that speakers do not always identify this ultimate cause and need not lexicalize it. This point has also been discussed by Folli (2002) who cites Higginbotham (1997) as her source. As also noticed by Reinhart (2000) for English *by itself* (see fn. 2), German *von selbst* is best used in anticausatives if the speaker wants to stress that it is not the case that a specific causer of a change of state can be identified, as in the following dialogue.
(22) a. Vater: Hast du die Vase zerbrochen?
Father: did you break the vase?

b. Kind: Nein, sie ist von selbst zerbrochen
Child: No, it is by self broken

This semantics for von selbst also explains why this phrase is easily acceptable in the context of anticausatives but needs special contextual licensing already in the context of transitive predicates as (1), (10) or (14) and especially in the context of predicates expressing psychological states such as (19). This acceptability hierarchy simply reflects the fact that anticausatives express events that by their very nature can also be conceptualized as caused and expressed as causatives; these verbs undergo the causative-anticausative alternation. Transitive/causative events are not as easily conceptualized as being themselves caused, and in order to express such a scenario, a periphrastic causative construction is necessary. Psychological states like ‘love’ finally are hardest to be conceptualized as caused. That conceptualisation is the relevant point here can also be seen from a comparison between change of state verbs that undergo the causative alternation and those that only have an intransitive use. While the former can easily be modified by von selbst, the latter are more restricted. The reason for this is that verbs of the latter class express events which are conceptualized as internally caused (cf. Levin Rappaport Hovav (1995), Alexiadou et al. (2006) among others). This means that speakers associate with such verbs the assumption that a (direct) causation of the change of state is not possible. However, once a context makes such causation accessible as in (24), modification by von selbst becomes acceptable, too.

(23) a. Die Rose blühte (#von selbst) auf
The rose blossoms (by self) up

b. Der Apfel verrottet (#von selbst).
The apple decays by self'

you need the roses not especially manure. They blossom all by self up

you need no composter with-it do. The apples decay by self

A final argument, that the interpretation of von selbst does not hinge on the existence of a causer, be it syntactically or conceptually (i.e. in a lexical entry) represented, comes from German change-of-state contexts built from the eventive copula werden (become) in combination with an adjective. To my knowledge, no one has ever argued that such constructions involve a causer argument at any grammatical level, but this construction licenses von selbst quite productively. The reason is that we easily conceptualize change-of-state events as potentially caused by an outside force, no matter whether they are expressed by a verb or a copula+adjective construction. Therefore it is relatively easy to imagine circumstances where it makes sense to stress the absence of such a causer via the addition of von selbst. The following examples are taken again from a Google search.

(25) a. Meine Schilddrüse (dicker Hals) wurde von selbst wieder normal!
my thyroid (thick throat) became by self again normal

⁹ Changes which are conceptualized as internally caused are an exception to this, as discussed above.
b. Das Pferd wurde von selbst schneller  
the horse became by self faster  
c. Die Aufteilung des Themas in einzelne Abschnitte und Unterabschnitte wird von selbst deutlich  
the partition of the topic in single sections and sub-sections become by self clear  
d. Wer sich körperlich betätigt, wird von selbst wohlig müde und braucht kein Schlafmittel.  
who Refl bodily acts, becomes by self welfare tired and needs no soporific

3.2 Greek\textsuperscript{10}

This section shows that the Greek phrase \textit{apo monos tu} behaves as its German counterpart. First, it is licensed in anticausatives (cf. Alexiadou et al. 2006).

(26) \textit{I porta anikse apo moni tis}  
the door opened by alone-sg hers

Further it is not licensed in contexts which trigger an interpretation as \textit{“alone”} or \textit{“without outside help”} (see 28 and 31) but it is licensed in contexts which trigger the interpretation \textit{“without outside force”} as in (29) and (32).

(27) O Janis espase to vazo apo monos tu  
The John broke the vase by alone his

(28) a. #Kanis den ton voithise  
nobody neg him helped  
b. #Kanis de ton ipostirikse  
nobody neg him supported

(29) a. Kanis den ton anagase  
nobody neg him forced  
b. Kanis den ton prostatikse  
nobody neg him requested

(30) O Janis den htipise ton Petro apo monos tu  
Hans neg hit the Peter by alone his

(31) a. #I Maria ton voithise  
the Mary him helped  
b. #I Maria ton stiriikse  
the Mary him supported

(32) a. I Maria ton anagase  
the Mary him forced  
b. I Maria ton prostatikse

\textsuperscript{10}The data in this section was provided to me by Artemis Alexiadou and Elena Anagnostopoulou.
the Mary him requested

In contrast the Greek adverb *monos tu* (alone) evokes exactly the opposite judgements. All this is exactly parallel to the German data that we saw above.

(33) O Janis den espase to vazo monos tu
    Hans neg broke the vase alone his

(34) a. I Maria ton voithise
    Mary him helped

b. I Maria ton stirikse
    Mary him supported

(35) a. #I Maria ton anagase (exactly as above)
    Mary him forced

b. #I Maria ton prostakse
    Mary him requested

Next, the data in (36) show that *apo moni tu*, as its German counterpart, is licensed with stative verbs if the context makes the causation of the stative relation assumable.

(36) a. Den ine alithia oti o Janis psithirise tin apandisi sti Maria.
    Neg is true       that the John whispered the answer to-the Mary.

b. Iksere tin apandisi apo monis tis
    Knew-3sg the answer from alone hers

Finally, we turn to change of state verbs made up not from verbs but from combinations of an eventive copula with an adjective. In Greek, this construction is by far more restricted than in German.\textsuperscript{11} For some reason which is not understood, German allows *copula+adjective* constructions, even if there exists a verb expressing the same concept. Greek (and as we will see later also English and Italian) is thereby much more restricted. It is important to notice that this restriction is totally independent of the modification with *by itself*. Especially, if we control the examples so that they do not compete with a synonymous verb, we see that even in Greek *copula+adjective* constructions *apo monis tu* is licensed.

(37) O Kazantzakis egine megalos apo monis tu. Den ton voithise i Akadimia.
    Kazantzakis     became big     from alone his. Neg him helped the Academy.

3.3 Italian\textsuperscript{12}

In this section we apply the tests already discussed for German and Greek to Italian. We first turn to the examples which identify the readings “alone” and “without outside force”. As the examples below show, Italian speakers accept both types of continuation. From this we have to conclude, that Italian *da sé*, in contrast to its German and Greek counterparts, is ambiguous.

\textsuperscript{11} For Greek, a possible explanation might be that one can easily form a verb out of an adjective by adding a special affix.
\textsuperscript{12} The data in this section was provided to me by Chiara Frigeni and Giuseppina Rota.
(38) Gianni ha rotto tutte le finestre dell’edificio da sé
    Gianni has broken all the windows of the building by Refl

(39) a. Nessuno l’ha aiutato (a farlo)
    Nobody him has helped (to do)
b. Nessuno gli ha dato una mano (a farlo)
    Nobody him has given a hand (to do)

(40) a. Nessuno l’ha costretto (a farlo)
    Nobody him has forced (to do)
b. Nessuno gli ha chiesto (di farlo)
    Nobody him has asked (to do)

(41) Gianni non ha rotto tutte le finestre dell’edificio da sé
    Gianni not has broken all the windows of the building by Refl

(42) a. Mary l’ha aiutato (a farlo)
    Mary him has helped (to do)
b. Mary gli ha dato una mano (a farlo)
    Mary him has given a hand (to do)

(43) a. Mary l’ha costretto (a farlo)
    Mary him has forced (to do)
b. Mary gli ha chiesto (di farlo)
    Mary him has asked (to do)

We might ask whether this data proves that the semantic characterisation which Chierchia gave for *da sé* is wrong. Actually the continuations in (39) to (42) are also compatible with his semantics of *da sé* (“*sole cause*”). However, we can at least show that his claim, that *da sé* is necessarily bound by a causer/agent is wrong. As in the languages discussed above, Italian also licenses *da sé* with stative verbs as soon as a context is given which makes it at least assumable that such a stative relation could be caused.

(44) a. Gianni ha dovuto suggerire la risposta?
    Gianni has need suggest the answer?
b. No, Mary sapeva la risposta da sé
    No, Mary knew the answer by Refl

(45) a. Mary non sapeva la risposta da sé
    Mary not knew the answer by Refl
b. Gianni ha dovuto suggerirle la risposta
    Gianni has need suggest the answer

The acceptability of these data shows that *da sé* must have the reading “*without outside force*”; neither the “*sole cause*” nor the “*alone*” reading would do in (44/45). The data in (39) and (42) could be captured either by the reading “*alone*” or the reading “*sole cause*”. The data in (40) and (43) could be captured by the reading “*sole cause*” or “*without outside help*”.

12
In principle there are two possible conclusions; (i) either da sé has the readings “alone” and “without outside force” and, in anticausatives, it has the latter reading. (ii) As an alternative, it has in addition the reading Chierchia proposes and this is the reading which shows up in anticausatives. While both options are in principle possible, the fact that the German and Greek counterparts can only have the reading “without outside force” suggests that the first alternative is correct.

Finally we can again dismiss the assumption that da sé is licensed by some pre-syntactic causer. As in the languages before we can find become+adjective constructions in Italian too, which license da sé. As in Greek such constructions are hard to find as speakers prefer corresponding verbal constructions. But if speakers do accept them, then they also accept the addition of da sé, exactly as in German and Greek.

\[(49)\]
\[
\begin{align*}
\text{a.} & \quad \text{Non si deve scaldare la stanza. Diventerà calda da sé quando il sole splenderà.} \\
& \quad \text{Not one needs warm/heat the room. Will-become warm by self, when the sun shines}
\end{align*}
\]
\[
\begin{align*}
\text{b.} & \quad \text{Non devi asciugarli. Diventeranno asciutti da sé.} \\
& \quad \text{Non need-you dry (the dishes). become-they dry by Refl}
\end{align*}
\]
\[
\begin{align*}
\text{c.} & \quad \text{Non hai bisogno di colorare quella superficie. Diventa gialla da sé.} \\
& \quad \text{not have-you need of color that surface. become-it yellow by SELF.}
\end{align*}
\]
\[
\begin{align*}
\text{c.} & \quad \text{Non innervosire Maria! Diventa gia’ nervosa da sé!} \\
& \quad \text{Not make-nervous Mary! become-she already nervous by SELF.}
\end{align*}
\]

### 3.4 English\(^\text{13}\)

Finally I turn to English. Recall that Levin & Rappaport-Hovav (1995) claimed that English by itself is ambiguous between the readings “alone” and “without outside help”. We had already seen that in other languages the reading “without outside help” is better characterized as “without outside force”. We might therefore predict that English by itself behaves exactly as its Italian counterpart in being acceptable in both types of continuation characterising these two readings. However, my informants told me that only the first data set is really acceptable.

\[(50)\]
\[
\text{John broke the vase by himself}
\]

\[(51)\]
\[
\begin{align*}
\text{a.} & \quad \text{No one helped him to} \\
& \quad \text{No one supported him in it}
\end{align*}
\]

\[(52)\]
\[
\begin{align*}
\text{a.} & \quad \text{#Nobody forced him to} \\
& \quad \text{#no one asked him to}
\end{align*}
\]

From these data we might conclude that English by itself only has the reading “alone”. But recall that Levin & Rappaport-Hovav had argued that exactly this reading is not relevant when by itself comes with anticausatives as in (53a). This is also shown by (53b) which, if acceptable at all, clearly has a different reading than (53a).

\[(53)\]
\[
\begin{align*}
\text{a.} & \quad \text{The vase broke by itself}
\end{align*}
\]

\(^{13}\) The data in this section was provided to me by Tom McFadden and Jonny Butler.
b. The vase broke alone

The way out of this contradiction seems to be the following: If by itself has an animate antecedent, its interpretation is restricted to the “alone” reading. The other reading that we found in those contexts in other languages seems to be better expressed in English by the phrase “all on his own”. We therefore do not expect to find by itself but all on his own in the stative contexts with a human subject where we found its counterpart in the other languages (He knew the answer all on his own).

Turning to the become+adjective construction, we notice that this is highly restricted in English too. Instead, speakers either prefer corresponding verbs or the combination of get+adjective, the latter indeed licensing the by itself phrase as in (54).

(54) The climate got warmer by itself

However my informants accept the following example built by become+adjective and there they also accept the addition of by itself.

(55) 300 Million years ago the climate became already warmer by itself and without human intervention. Why should this time humans be the cause.

This example suggests that English by itself can have the “without outside force” interpretation if it is antecedced by a non-human entity. Neither the “sole cause” reading nor the “without outside help” reading make sense in this example. But if English allows the “without outside force” reading for by itself in (55), then this reading should be available in the context of anticausatives as in (56).

(56) a. The climate changed by itself
   b. The vase broke by itself

3.5. Conclusions from the language survey

To conclude, I have shown that the by-itself phrase in German and Greek is not ambiguous but has one reading which I labelled “without outside force”. The addition of by itself stresses that no outside force (a human agent or an inanimate causer) has acted on its antecedent and thereby caused that its antecedent relates to the event the way it does. This characterization of by itself does not restrict the thematic role of the antecedent of by itself and therefore does not restrict the event types in which by itself is licensed. This seems to be empirically correct. We find by itself in all types of events albeit with different ease. We freely find it with anticausatives. The reason for this is that these verbs can freely be construed with a causer argument as well. Therefore it makes pragmatically sense to stress the fact that the event expressed by such a verb is indeed understood as having taken place without a (identified) causer. Internally caused verbs, stative

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14 In contrast to become+DP, which is very productive.
15 Especially, if we assume that the transitive use is true in a subset of the situations where the intransitive use is true. Koontz-Garboden (2006) argues against this assumption with the help of examples as (i) which suggest that an anticausative event can be wrong while at the same time the corresponding causative event is true. However, I think that this is not the right conclusion. The type of negation involved in (i) is not construed descriptively but is construed as a meta-linguistic negation or an ‘implicature denial’ (cf. Geurts 1998). Just as speaker B in (ii) denies...
verbs or experiencer verbs express situations which are not so easily conceptualized as caused. Therefore a meaningful interpretation of by itself in the context of such verbs is hard to get out of the blue. However, once an adequate context is given, this burden is overcome.

Passives do not license by itself because the implicit argument cannot bind it for formal reasons; if it is bound by the theme however the semantics of by itself are in contradiction to the presence of the passive’s implicit external argument.\textsuperscript{16,17} The study of German and Greek by itself shows that these phrases do not have the readings that Chierchia and Levin & Rappaport Hovav proposed. The licensing of by itself in the context of German and Greek anticausatives therefore does not argue in favour but against an analysis of anticausatives as reflexives or as derived from a causative LCS.

Italian and English differ in that their by itself phrases are ambiguous between two readings. They clearly can have the reading “alone”. This reading is not relevant in anticausatives as already Levin and Rappaport Hovav (1995) mentioned. We found Italian da sé also in the context of stative verbs which neither lend to the interpretation “alone” nor to the interpretation proposed for da sé by Chierchia (“sole cause”). This suggests that da sé at least can have the same reading as its German and Greek counterparts (“without outside force”).

All four languages finally license by itself modifying eventive copula+adjective constructions, although this construction is not very productive in English, Italian and Greek. This phenomenon states a further case which cannot be captured by the theories of by itself proposed by Chierchia or Levin & Rappaport Hovav. It shows that an agent or causer argument is not needed at any conceptualization or outer sentence context which must allow the option that the modified event could in principle be caused. The interpretation proposed here captures these cases, too. The last two phenomena mentioned therefore give reason to assume that it is even the right interpretation for by itself in the case of English and Italian anticausatives and that the reflexivization analysis of anticausatives is wrong for these languages too.

4. The compositional meaning of by + itself

So far I have established that by itself in all languages under consideration conveys the meaning “without outside force”. In this last section I want to give an informal description of how this

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\textsuperscript{16}This explanation should carry over to the fact that “not by itself” is also not licensed in passives. The negation of the absence of a causer is trivially fulfilled by the existence of the implicit argument.

\textsuperscript{17}Notice that this explanation makes the interesting prediction that by itself should be licensed in passives whose implicit argument is not an agent or causer. This prediction turns out to be correct in (i) where von selbst seems to stress that the theme of the verb needs not be manipulated in order to be seen. I have to admit, however, that this example is hard to judge.

(i) Das wird von selbst gesehen (This is seen by self)
reading could be derived compositionally from the meaning of the parts of the prepositional phrase. Such an analysis of the semantics of *by itself* should take into account a number of things. First, *by itself* is more easily licensed with anticausatives that have a transitive counterpart than with internally caused and transitive verbs. Second, all languages discussed here form *by itself* with the same preposition that is also used to introduce the external argument in passives. Third, at least German *selbst* and English *itself* are intensifiers which typically bear phonologically stress. Since the last observation holds for German and English but not so obviously for Greek and Italian, I will restrict this discussion to the first two languages and hope that the analysis is in principle transferable to the other two.

If we take the observation about the kind of preposition involved in these constructions seriously, we have to conclude that the job that this does in *by itself* is at least connected to the job that it does when it introduces external arguments in the passive. Passives have an implicit external argument. It is typically assumed that this argument is existentially bound as below in (57c). But as an alternative this implicit argument can be overtly realized in a prepositional phrase (58). I will call this the ‘*(passive) by*-phrase’.

(57)  
| a. Die Vase wurde zerbrochen, um die Mutter zu schockieren |
| b. The vase was broken, in order to shock the mother |
| c. ∃x (x broke the vase) |

(58)  
| a. Die Vase wurde von Peter zerbrochen |
| b. The vase was broken by Peter |

Fox & Grodzinsky (1998) argue that a special mechanism (which they call θ-transmission) transfers the external (compositional) θ-role of the VP to the NP in the passive *by*-phrase. Baker, Johnson and Roberts (1989) argue that the ending -*en* on the English passive participle is the bearer of this external theta role. -*en* is a clitic which forms a chain with a full NP. If the NP is covert, we get a short passive. If it is overt it is realized in the passive *by*-phrase.

We can informally say that the passive provides an external theta role and further presupposes that this theta role is assigned to an existentially bound argument. This assignment can be made concrete via the PP modifying the passive predicate. The passive *by*-phrases then express something like (59).

(59) \[\text{by}_{\text{passive}} (x) \simeq \lambda x \lambda P (x \text{ is the bearer of an external argument theta role of the predicate } P)\]

Notice that under this view the external theta role relation is represented twice, once in the semantics of the passive predicate (57c) and once in the semantics of the preposition (59). The passive assigns such a theta role, the preposition states that its complement is the bearer of such a theta role.

The licensing of the *by*-phrase is restricted to passives. Anticausatives do not license it. The standard reasoning is that anticausatives do not have an implicit argument. Therefore the mechanism of theta transmission cannot apply and the complement of the preposition remains without theta role.

(60)  
| a. Die Vase zerbrach (*von Peter) |
| b. The vase broke (*by Peter) |
In a similar vein, the *by*-phrase is not licensed in transitives. Here the external theta role is already assigned to the subject DP and the theta criterion prohibits that the same theta role is assigned twice. Therefore, again the mechanism of theta transmission fails.

\(\text{(61) }\)

a. Maria zerbrach (*von Peter) die Vase.

b. Mary broke the vase (*by Peter).

Recall that the *by itself* phrase is licensed in anticausatives and transitives, but not in passives. *By itself* and the passive *by*-phrase are in complementary distribution. This complementary distribution, I think, is the result of the semantics of the intensifier SELBST/SELF which is part of the German and English *by itself* phrase. In order to see this I first show what intensifying SELF brings about in other contexts.

German stressed SELBST (intensifying SELBST) has at least two uses, an adnominal and an adverbial use. Here only the adnominal use is relevant.\(^{18}\) Eckardt (2001) develops a semantic analysis of adnominal SELBST which directly carries over to English ‘pronoun-self’ in its adnominal use. Intensifying adnominal selbst (like English pronoun-self) commonly states that the respective sentence is true and that the proposition is the most surprising, or least probable one in a set of alternative propositions. These alternatives arise by replacing the referent of the NP that is linked with selbst by (contextually restricted) alternative entities. The sentence below therefore stresses the (unexpected) fact that it was the king and not someone else (e.g. one of its entourage) that opened the door.

\(\text{(62) }\)

a. Der König SELBST öffnete die Tür

b. The king HIMSELF opened the door

Eckardt proposes that the core meaning contribution of SELBST is the identity function ID on the domain of objects \(D_e\) (63). That means that SELBST above denotes a function that maps the king to himself (64).

\(\text{(63) }\)

\[\text{ID: } D_e \rightarrow D_e\]

\[\text{ID}(a) = a \text{ for all } a \in D_e\]

\(\text{(64) }\)

\([\text{[king] selbst}] = \text{ID } ([\text{king}] = [\text{king}])\)

So far SELBST seems to be superfluous as it does not make any meaning contribution. This is the point where focus comes in. Adnominal SELBST (but not the modified noun) typically carries a focus accent. It is this focus on the identity function which is the origin of the meaning contribution of SELBST. Focused SELBST, like any other focused item, provides us with a set of (contextually constrained) focus alternatives that will enter in the meaning of the respective focus construction. The focus meaning of adnominal SELBST is not the set of all alternatives to an individual (as it would be if the king were directly focused in (62)) but the set of all functions which map an individual to other individuals in \(D\). In our example above it is the set of functions that map the king to other individuals (contextually most likely those functions that map him to individuals of his entourage).

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\(^{18}\) Eckardt (2001) argues that the adverbial use of SELBST can be traced back to its adnominal use. However, Hole (2006) shows that this is not correct. I do not discuss the adverbial use of SELBST here because I think what is at stake with the *by itself* phrase is the adnominal use.
(65)  

a. \[ \text{selbst}^f = \{ f : f(x) \neq x \} \]

b. \[ \text{selbst} = \{ f | f \text{ maps } x \text{ to } x\text{'s butler, } f \text{ maps } x \text{ to } x\text{'s life guard, } f \text{ maps } x \text{ to } x\text{'s court jester, } f \text{ maps } x \text{ to } x\text{'s minister, } \ldots \} \]

This has the very interesting consequence mentioned by Sæbø (2005), that the use of SELBST allows us to focus elements indirectly that could not be focused directly. To take one of his examples, in (66) below it is impossible to stress the associate of SELBST because it is a continuing topic taken up by the pronoun es. Importantly, a stressed form of the pronoun es does not even exist. But via adnominal SELBST we can put focus on the referent of es indirectly.

(66)  Ich möchte spätestens mit 17 ein Kind haben, weil ich es einfach am besten finde, früh Kinder zu bekommen, um mein Kind, wenn es SELBST Teenager ist, zu verstehen.

Now if SELBST in von selbst/ by itself expresses the same identity function as in its adnominal use we might wonder what it takes as its input. I want to argue that in this case it intensifies the empty set of individuals.

(67)  \[ \{ \emptyset \} \text{ SELBST} = \text{ID} (\{ \emptyset \} = \{ \emptyset \}) \]

By focusing SELBST we get a set of alternative functions which map the empty set on other sets which are not empty. As always, these sets are contextually restricted. Before we analyze the effects of relevant context notice first that under this view SELBST gives us a way to focus indirectly the empty set, something that otherwise would be impossible.

Let’s go through the different construction mentioned so far. Passives have an implicit external argument and the theta role of this argument is transferred to the NP in the by-phrase. Thereby this NP passes the theta criterion. We can even modify this NP with SELBST.

(68)  Die Vase wurde von Peter selbst zerbrochen

The vase was broken by Peter himself.

The addition of SELBST stresses that Peter is the external argument of the event of breaking the vase. Technically, it provides us with a focus set of functions which map Peter on other individuals, thereby providing us indirectly with a set of alternative entities. This set is contextually restricted. One restriction is that these alternatives should be potential bearers of the external theta role of a breaking of the vase.

Recall now, that by itself is not licensed in passives (69). The reason for this is that by itself modifying passives leads to a contradiction. On the one hand, the passive provides us with an implicit external argument (70a). On the other hand, the device that can make this implicit argument overt (the by-phrase) provides us with the information that all possible instantiations of this external argument do not apply; it denies therefore that there is a bearer of the external argument theta role of the passive predicate. The meaning of the preposition in combination with SELBST intensifying the empty set gives us (70b) (compare (59) above). (70a) and (70b) contradict each other.
(69) a. *Die Vase wurde von selbst zerbrochen
b. *The vase was broken by itself.

(70) a. ∃x (x broke the vase)
b. (by [(∅) SELF]) ≈ ¬∃x λP (x is the bearer of an external argument theta role of the predicate P).

Anticausatives on the other hand do license by itself. SELBST maps the empty set on itself. Focus on SELBST gives us a set of alternatives to the identity function which map the empty set on any other set. By itself therefore stresses that the set of bearers of an external theta role is empty. The question is how to integrate this set as well as its alternatives into the anticausative event; what is the relevant thematic role of the empty set as well as of its focus alternatives? For the empty set I think integration is straightforward. The by itself phrase tells us that there is no external argument holder for the breaking event of the vase. This is trivially true because the anticausative predicate does not provide such a theta role. (72a) and (72b) do not contradict each other. With respect to the theta criterion the combination of (72a) and (72b) might be ok, too, if we assume that the empty set does not need a licensing theta role.19

(71) Die Vase zerbrach von selbst
The vase broke by SELF

(72) a. broke (the vase)
b. (by [(∅) SELF]) ≈ ¬∃x λP (x is the bearer of an external argument theta role of the predicate P).

So far, the modification of an anticausative with by itself is without any truth-conditional effect, but we know that the semantic effect of SELBST is produced by its focus. It provides us with a set of functions that map the empty set to a non-empty set whose members we have to integrate thematically into the modified proposition. Here I assume that SELBST in combination with the preposition carries along the presupposition that the complement of SELBST can be integrated into the event in the same way known from the passive, the prototypical use of the preposition, i.e. as an external argument (force). This means the use of by itself presupposes that the focus alternatives to the empty set can stay in an external argument relation to the event modified by the by itself phrase. Since the modified event is anticausative and does not assign such an external theta role, this requires some amount of accommodation, i.e. of addition of information which is not directly linguistically encoded but must be conferred by world knowledge or context. The success of such an accommodation varies.

We saw above that out of the blue modification with by itself is often not felicitous. In order for by itself to be felicitous, we need a context where the predicate that is modified with by itself indeed is related to an external argument. That is we need a context that fits the information expressed by the elements in the focus set produced by by itself. With anticausatives such a context can easily be set up (but cf. fn. 1). These verbs alternate between an anticausative and a causative use, the latter having an external argument. If we follow the theory of the causative alternation in Alexiadou et al. (2006), the presence vs. absence of an external argument is even

19 Note again that the preposition only says what kind of theta role its argument should be assigned but does not assign such a theta role.
the only difference between the two constructions. The focus set produced by *by itself* therefore gives us a set of alternative instantiations of an external argument theta role; these theta role bearers can easily combine with an anticausative event if we turn it into a causative event. *By itself* modifying an anticausative event therefore expresses that only an anticausative event took place, not a corresponding causative event.

In the context of internally caused verbs and transitive verbs modification of *by itself* is much harder to get. The reason is that these predicates do not undergo lexical causativization, i.e. it is not so easy to combine these kinds of events with a (further) external argument as it is produced by the focus set of *by itself*. In order to add an external argument to these predicates we also have to add a higher event that hosts the external argument. The kind or nature of this super-event has to be accommodated via context or world knowledge. It is typically of the type of a periphrastic causative event or an event of helping, as in the examples we saw in our language survey.

As mentioned, English *pronoun-SELF* has the same intensifying use as German *SELBST*. The analysis proposed here therefore should carry over to English (see Hole (2006) for some ideas about how to integrate the pronominal part in the English intensifier). The Greek counterpart of *by itself* does not have an adnominal intensifier like *SELBST*. It contains however the adjective *monos* (alone). I cannot give an explanation of why this phrase should have the same semantics as its German and English counterparts but I only want to mention that German *von selbst* (by self) can be replaced by *von allein* (by alone) without any difference in meaning in all examples discussed; German therefore has a second *by itself* phrase that looks more similar to the Greek one. Finally the origin of the meaning of Italian *da sé* remains mysterious as it is built up by the combination of the passive preposition with a simple reflexive clitic. A closer analysis of the internal composition of *da sé* remains for future research.

5. Summary

I argued against the proposal by Chierchia (2004) that *by itself* and its counterparts in German, Greek and Italian express the meaning that its formal antecedent is the *sole cause* of the modified event. The argumentation builds on the one hand on a closer inspection of the contexts where *by itself* can modify anticausative predicates and on the other hand on the observation that crosslinguistically *by itself* can modify events which do not have a causer argument in the first place. As an alternative interpretation I proposed that *by itself* and its counterparts express the meaning *without outside force*; they deny that their formal antecedent has been caused by anything to take part in the event expressed by the modified predicate. This is the only reading of *by itself* in German and Greek. In Italian and English the phrase can also express the meaning *alone* in the sense of “unaccompanied”. Further, it was shown that crosslinguistically the suitable use of *by itself* under the reading *without outside force* needs a contrastive context. A closer inspection of the decompositional meaning of German *von selbst* derived this from the focus-bearing nature of the intensifier *selbst*.

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20 This adjective can be used to intensify a noun phrase as in ‘o Janis monos tu’ (the Janis alone he), p.c. Artemis Alexiadou.
References:


Reinhart, T. (2000). The Theta System: Syntactic realization of verbal concepts, OTS Working papers, 00.01/TL.