NON-SELECTED DATIVE SUBJECTS IN ANTICAUSATIVE CONSTRUCTIONS (*)

Riassunto

Lo scopo di questo articolo è l’analisi delle proprietà di una costruzione ricorrente in spagnolo, come in numerose altre lingue geneticamente diverse, dove un argomento dativo non nucleare viene aggiunto ad una costruzione anticausativa e può essere interpretato come una causa accidentale o non intenzionale dell’evento. Prima si stabilisce che l’aggiunta di un argomento dativo ad una tipica struttura anticausativa richiede la proiezione di un predicato causativo (CAUSA) nella sintassi, in linea coll’analisi proposta, fra gli altri, da Schäfer (2008). In particolare, secondo la nostra proposta, l’argomento dativo è introdotto da un sintagma con applicazione in alto (Pylkkänen 2008) e si comporta come un soggetto o un argomento esterno rispetto a certe proprietà sintattiche. Quanto al ruolo tematico che svolge, noi mostriamo che questi predicati sono sottospecificati in rapporto all’argomento esterno e seguiamo Koontz-Garboden (2009) nel presupporre che il dativo venga interpretato come un EFFECTOR. Poi, considerando le proprietà di questo soggetto dativo, mostriamo che per lo più esse derivano dal fatto che il soggetto partecipa al primo (iniziale) subevento del predicato, come succede in generale agli argomenti esterni (Harley 1995). La predizione di questo asunto è che i dativi col ruolo di EFFECTOR non ricorrono coi verbi di cambiamento di stato che esprimono eventi prodotti da una causa interna e mancano di un predicato causativo, un fatto che è passato inosservato o è rimasto senza spiegazione in altre analisi della costruzione. L’idea che questi elementi siano introdotti da una testa con applicazione in alto viene sviluppata nel senso che vediamo che la relazione di tipo have, che si stabilisce fra il dativo e il subevento di cambiamento di stato, spiega alcune restrizioni.

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1. Introduction

The type of argument structure variation that involves the addition of noncore arguments is a pervasive property of human language and most languages have verbs that exhibit this behavior (Pylkkänen 2008). This paper examines a construction found in Spanish, as well as in a variety of genetically quite different languages, in which a non-selected dative argument appears in an anticausative construction. This is illustrated in (1), where the datives a Juan and a Pedro have been added to an anticausative structure (in English: ’the glass has broken’/ ’the food has burned’) and may be interpreted as accidental or unintentional causers of the event.

\(1\) a. A Juan se le ha roto el vaso.
   to Juan se CLDAT has broken the glass
   ’Juan has (unintentionally) broken the glass.’

b. A Pedro se le quemó la comida.
   to Pedro se CLDAT burned the food
   ’Pedro has (unintentionally) burned the food.’

The verbs involved are transitive verbs like romper ‘break’ and quemar ‘burn’, which do not typically select for a dative argument as part of their lexical properties. In canonical transitive contexts, these verbs are constructed with a nominative and an accusative argument as in (2). In this, they contrast with other biargumental verbs such as gustar ‘like’ in (3a), belonging to the large subclass of psych-(ological) verbs, including molestar ‘bother’ (3b), asustar ‘frighten’ and so on, which select for dative arguments, as well as nominative arguments (\(^1\)).

\(1\) The contrast extends to the thematic role usually assigned to the dative. Psychological verbs usually take experiencers, whereas, as we will show, the datives under study are interpreted as accidental causers. This is shown, among other things, by the fact that they are constructed with adverbs such as accidentalmente ‘accidentally’:
(2)  a. Juan\textsubscript{NOM} rompió el vaso\textsubscript{ACC}.
   'Juan broke the glass.'

   b. Pedro\textsubscript{NOM} quemó la comida\textsubscript{ACC}.
   'Pedro burned the food.'

(3)  a. A Juan\textsubscript{CL}\textsubscript{TAT} le gustan los helados\textsubscript{NOM}.
   'Juan likes ice cream.'

   b. A María\textsubscript{CL}\textsubscript{TAT} le molesta el ruido\textsubscript{NOM}.
   'Noise bothers Maria.'

Verbs like romper 'break' and quemar 'burn' enter the causative alternation; that is, together with the transitive structures in (2), they have anticausative forms such as those in (4), in which the external argument is missing and a reflexive clitic (se) is introduced.

(4)  a. El vaso se rompió.
   'The glass broke.'

   b. La comida se quemó.
   'The food burned.'

Thus, these verbs are associated (i) with transitive causative structures like (2), where Juan and Pedro are interpreted as being directly responsible for the event denoted (though they may act either intentionally or unintentionally); (ii) with anticausative constructions like (4), interpreted as an event that takes place 'spontaneously', without the intervention of an external cause, and (iii) with dative argument constructions like (1), in which the dative DP may be interpreted as indirectly responsible for the event and acts unintentionally. Additionally, constructions like (1) may also have an affectedness reading: the dative DP is interpreted as the benefactor or malefactor of the event described (see Schäfer 2008 and Rivero 2003) (2). For a sentence like

(i)  a. A Pedro\textsubscript{CL}\textsubscript{TAT} se le quemó la comida accidentalmente (1b)
   b. 'A Juan le gustan los helados accidentalmente (3).

(2) An inalienable possession meaning is also possible. We will go back to this interpretation in section 4.2 (and section 5) of this paper.
(1b), this interpretation could be paraphrased as ‘the food burned and Pedro is somehow affected’. This reading is obtained in anticausative constructions like those in (1) but also in transitive (5a) and passive contexts (5b), with which the unintentional causer interpretation is, however, blocked (3).

(5) a. \textbf{Le quemaron la comida a Juan.} \\
CL\text{dat} burned-3pl the food to Juan \\
‘They burned the food and Juan is affected.’

b. \textbf{Le fueron reparados los bienes dañados al demandante.} \\
CL\text{dat} were repaired the goods damaged to the plaintiff \\
‘The damaged goods were repaired and the plaintiff was affected’.

Though the affectedness reading can also be obtained in anticausative constructions such as (1), the most salient interpretation of these sentences is that in which the dative argument is related to the cause of the burning or the breaking (4). This is why the contrast in (6) is obtained: while the dative element (\textit{al chef}) can only be given the affectedness reading and cannot be considered as the accidental or unintentional causer of the burning in a transitive context such as (6a), both interpretations are found in the anticausative construction in (6b), and hence the incompatibility with an additional causer (\textit{el pinche} ‘the scullion’), which, however, can be added in (6a):

(6) a. \textbf{Al chef le quemaron la comida: fue el pinche.} \\
\text{to the chef CL\text{dat} burned-3pl the food: was the scullion} \\
‘The food was burned and the chef was affected: it was the scullion.’

b. \#\textbf{Al chef se le quemó la comida: fue el pinche} \\
\text{to the chef CL\text{dat} burned-3sg the food: was the scullion} \\
‘The chef (unintentionally) burned the food: it was the scullion.’

(1) We will also show that at least in Spanish the unintentional causer cannot be found with unergatives, and that it is only possible with the anticausative or unaccusative version of verbs entering the causative alternation, as in (1).

(2) Some authors derive one reading from the other (Cuervo 2003). In fact the affectedness reading, as mentioned, is not excluded and can always be obtained in the cases we analyze. The opposite does not hold, that is, the ‘causer’ reading, which is the object of our study, is restricted, as we will show, to a particular class of verbs: externally caused, alternating, \textit{se} marked verbs.
According to Rivero (2003) the ‘causer’ reading for the dative arises because anticausatives like (4), as opposed to transitives like (2), lack formal external arguments. Though we agree with the basic idea behind this statement, this intuition will be reformulated in the analysis provided in this paper. We will argue that in order to provide a principled account of constructions like those in (1), it is essential to look at the lexical semantics of the verbs involved. Verbs like quemar and romper denote externally-caused change of state eventualities and are commonly analysed as involving two subevents: a causing subevent and a resultative or change-of-state (COS) subevent (see e.g. Levin & Rappaport Hovav 1995). Crucially, the dative argument, in the accidental causer interpretation, always participates in the first (initial) subevent of the predicate, as it is the case for external arguments in general (in the sense of Harley 1995, Borer 2005, Ramchand 2006), and is not part of the COS subevent. We take this as an indication that the added dative has ‘subject-like’ status in a way that will be specified in what follows. It will be shown that lack of an external argument is not enough to trigger the unintentional causer reading, as this reading is blocked with internally caused verbs of change of state such as palidecer ‘turn pale’, oscurecer ‘darken’, adelgazar ‘get thin’ and so on (see section 4 below).

We will explore the following hypotheses: (i) structures like (1) are the result of adding a non-selected dative argument to a typical anticausative structure. Such an addition requires the projection of a causative (causative) predicate in the syntax, in line with the analysis proposed by Schäfer (2008), among others; (ii) the ‘added’ dative argument is introduced by a high applicative phrase (Pylkkänen 2008) and displays most of the (syntactic) properties associated with subjects or external arguments, and (iii) the ‘subject-like’ properties displayed by the noncore dative mostly follow from the fact that it participates in the first (initial) subevent of the predicate, as is the case for external arguments in general (Harley 1995). Regarding (i), the fact that these structures take as their basis the anticausative variant of the causative alternation, explains the presence of se and the occurrence of a typically postverbal internal argument which,
nevertheless, triggers verbal agreement and shows nominative case. As for hypothesis (ii), as we will see, despite what agreement facts indicate, the dative element in the high applicative phrase has subject-like properties, such as those associated with external arguments (7). Finally, hypothesis (iii) explains why the unintentional causer construction can not be found with a subclass of change of state verbs, namely those expressing internally caused eventualities, which lack a causative predicate, a fact that has either gone unnoticed or remained unexplained in other analyses of the construction.

Our proposal accounts for structures like (1) in Spanish, but also for equivalent constructions with parallel interpretations in other Romance languages like in Italian (7), as well as in German (8), Greek (9) (with a genitive, instead of a dative, argument) and some Slavic languages, as illustrated in (10a) for Polish and (10b) for Bulgarian (and also in Albanian, Slovenian, etc.) (see Schäfer 2008 and Rivero 2003):

(7) A Mario si ruppe il portacenere (per errore). (Italian)
   to Mario 3sg broke the ashtray (by mistake)
   'Mario (accidentally) broke the ashtray by mistake.'

(8) Dem Hans zerbrach versehentlich die Vase. (German)
   the John broke unintentionally the vase
   'The vase broke and John caused this unintentionally.' (Schäfer 2008: 44)

(9) T u Ben tu kaike i supa. (Greek)
   the he burnt the soup
   'Ben involuntarily caused the soup to burn.' (Schäfer 2008: 71)

(7) In fact, this element has typical properties of a quirky subject, as found in languages like Icelandic, Croatian, Georgian and so on, as illustrated in (i) and (ii). We have argued that that the anticausative constructions like (1) above contain a quirky subject in the dative case (see Fernández Soriano 2000 and Fernández Soriano & Mendikoetxea 2010).

(i) Mig vantar peninga. (Icelandic)
   Medi needs money
   'I need money.'

(ii) Zubi mu nedostaju. (Croatian)
   Teeth nom-pl him lack
   'He lacks teeth.'
There are, of course, syntactic differences between the structures in (7)-(10) and the Spanish structures in (1). As noted, the added argument is in the genitive Case in Greek, as opposed to the other languages, where it is in the dative Case. In Italian, as well as in Balkan languages such as Polish and Bulgarian, the presence of a reflexive clitic is obligatory (like in Spanish), but there is no reflexive element in Greek, nor in German (6). In addition, clitic doubling of the dative is obligatory in Spanish and the same is true for Bulgarian, but not for Polish or Italian. As suggested by Schäfer (2008) these differences derive from independent properties of the different languages.

In what follows, we first look at the causative alternation as it is crucial to understand its properties in order to provide a principled analysis of the structures in (1) (sec. 2). We then examine the syntactic properties of the dative argument and provide evidence that it occupies a high position in the structure (sec. 3); we analyse dative argument constructions as the result of adding a noncore argument in a high applicative phrase to an anticausative construction (hypothesis (i) and (ii)). Section 4 discusses our hypothesis (iii) by providing evidence that the dative argument participates in the initial subevent of a causative construction, where it is interpreted as effector. Finally, we address some semantic restrictions on the dative argument in section 5, before the conclusions in section 6.

2. The causative alternation

Hypothesis (i) above states that the ‘dative subject’ construction in (1) is the result of adding a dative argument (and a clitic) to the anticausative structures in (4), which are, in turn, related to the transitive structures in (2). What this means is that the relation between (11a)

(6) In fact, as Schäfer 2008 shows, the accidental causer dative we are analyzing only appears in German with non (reflexively) marked verbs.
and (11c) below is mediated through (11b), the anticausative variant of the causative alternation:

(11) a. Juan ha roto el vaso. Transitive  
    ‘Juan has broken the glass.’

b. Se ha roto el vaso. Unaccusative  
    ‘The glass has broken.’

c. A Juan se le ha roto el vaso. Dative subject  
    to Juan se CLGASE has broken the glass  
    ‘Juan has accidentally broken the glass.’

In order to understand the syntactic and semantic processes involved in the derivation of (11c), it is first necessary to look at the properties of the causative alternation. This alternation is crosslinguistically extremely widespread and has been the topic of intensive research in linguistic theory. Under the common assumption that the two variants of the causative alternation (transitive (11a) and unaccusative (11b)) are derivationally related, a recurrent question in theoretical accounts of the alternation is to determine which of the two variants is basic and which is derived. Two views can be identified: (i) alternating verbs are basically monadic predicates and the transitive variant is derived via a process of causativization (Hale & Keyser 1986, 1993, Harley 1995 and Pesetsky 1995, among others), or (ii) alternating verbs are basically dyadic predicates and the anticausative/unaccusative variant is derived via a process of decausativization or detransitivization (Grimshaw 1982, Chierchia 2004, Levin & Rappaport Hovav 1995, Reinhart 2002 and Koontz-Garboden 2009, among many others). It is not our intention to review these two approaches here (see Schäfer 2009 for a detailed overview). In what follows, we first look at anticausativization as decausativization and then argue in favour of the common base approach, by which there is not a direct derivational relationship between the causative and the anticausative variants of the alternation.

2.1. Anticausativization as decausativization

Reflexive markers, like those found in Romance and Slavic languages, are common devices to mark the anticausative form. Under a
derivational approach the presence of a morphological marker is taken to indicate that the anticausative is derived from the causative by means of addition of the reflexive form *se*, which is commonly analysed as the marker of this derivational process (see among many others Marantz 1984, Burzio 1981, 1996, and Zubizarreta 1987) (7):

(12) a. Juan rompió el vaso. > El vaso *se* rompió.
    ‘Juan broke the glass.’    ‘The glass broke.’

    b. Pedro quemó la comida. > La comida *se* quemó.
    ‘Pedro burned the food.’    ‘The food burned.’

According to Levin & Rappaport Hovav (1995) (L&RH), verbs entering the causative alternation, such as *romper* ‘break’ and *quemar* ‘burn’ in (12) are those expressing externally caused changes of state; they “imply the existence of an ‘external cause’ with immediate control over bringing about the eventuality described by the verb: an agent, an instrument, a natural force, or a circumstance” (L&RH: 92) (see Mendikoetxea 1999 for an overview of those verbs in Spanish). In a projectionist, lexicalist approach, like that advocated by L&RH, anticausatives are derived from transitive structures expressing externally caused change of state events through a lexical operation of existential binding which suppresses the external argument in the mapping between the lexical semantic representation (LSR) of the verb and its lexical syntactic representation or Argument Structure (AS), thereby preventing the expression of that argument in the syntax, as shown in (13):

(13) LSR: [x-do something] cause [become[y <BROKEN>]]

Lexical binding  0
Linking rules
AS

[L&RH: 108]

(7) See Haspelmath 1993 for a thorough description of the ways in which languages mark the causative/anticausative distinction. Koontz-Garboden 2009 and Schäfer 2009 also offer an updated overview of this topic and its relevance for theoretical analyses of the alternation.
The anticausative structure is then interpreted as asserting that the central (become) subevent came about via some causing event, whose nature is unspecified. Verbs entering the causative alternation are verbs expressing externally caused eventualities which can come about spontaneously, without the volitional intervention of an agent: “what characterizes the class of alternating verbs is a complete lack of specification of the causing event” (L&RH 107) (see also Guerssel et al. 1985, Hale & Keyser 1987). This is reflected in the fact that a wide variety of subjects are allowed with these verbs: e.g. for romper, the external argument can be realized as an agent or an instrument, natural force or cause, as shown in (14):

(14) Juan/ el vendaval/ la piedra rompió el cristal.
   ‘Juan/ the wind/ the stone broke the glass.’

That is, the external arguments of the alternating verbs may either be agents of an event or causes of an event (Schäfer 2008: 3.4). A human subject like Juan in (14) may act with or without intentionality. According to Schäfer (2008), intentionality presupposes agentivity, and agentivity presupposes the feature [+human]. Instruments presuppose agentivity, but not intentionality. As for natural forces, they are not human and they are, therefore, non-intentional. As Koontz-Garboden (2009) states it “a root can specify of its arguments more or less entailments, from highly articulated specification to rather serious underspecification. Some verbs are highly specified and take only an agentive causer, while others are underspecified and can take agents, instruments, natural forces, etc.” (Koontz-Garboden 2009: 82). Following Van Valin & Wilkins (1996), this author calls this underspecified role EFFECTOR.

Crucially, underspecification of the causing event is also responsible for the fact that the cause argument may be left unexpressed. Note that verbs expressing externally caused eventualities which do not enter the causative alternation because they have specified causing events (they denote events that require agentivity) lack not only structures like (11b) but also dative subject constructions like (11c), as shown in (15b, c) and (16b, c), which we take as evidence that (11c) is the result of adding a Juan (and le) to (11b):
(15) a. Pedro/el cuchillo cortó la carne.
   'Pedro/the knife cut the meat.'
   b. *La carne se cortó (ella sola)
      the meat se cut (by itself)
   c. *A Pedro se le cortó la carne
      to Pedro se CLDAT cut the meat

(16) a. Un arquitecto famoso construyó el museo.
   'A famous architect built the museum.'
   b. *El museo se construyó (él solo)
      the museum se built (by itself)
   c. *A un arquitecto famoso se le construyó el museo
      to a famous architect se CLDAT built the museum

Within this typology of external arguments, the dative argument
is usually human and necessarily unintentional, which explains why
non-human causers are disallowed in the dative construction ((17b)
vs. (17a)). We will come back to this issue in section 5 below.

(17) a. A Juan se le rompió el cristal.
   to Juan se CLDAT broke the glass
   b. *A la piedra/al vendaval se le rompió el cristal
      to the stone/the whirlwind se CLDAT broke the glass

2.2. Common base approaches and the reflexivization analysis

In recent years, the idea that there is a direct derivational relation-
ship between the two variants of the causative alternation has been
questioned. Instead, it has been argued that both variants are derived
from one source, e.g. a category neutral verbal root in Alexiadou et al.
(2006a, b) (see also Pylkkänen 2008 and Schäfer 2009 for a review of
different ‘common base’ proposals). Under this approach, causatives
and anticausatives do not differ in the number of events involved. For
Pylkkänen (1999, 2008) both causatives and anticausatives involve
a root which expresses a resultant state predicated of the theme, but
in anticausatives this root combines with a become projection (18a),
while in causatives it combines with a cause projection, as well as a
voice projection which introduces the external argument (18b). This
is under Kratzer's (1996) hypothesis (following a hypothesis put for-
ward by Marantz 1984) that external arguments are not introduced by the verb itself but by a non-eventive \textit{voice} head:

\begin{align*}
\text{(18) a. } & \text{vP} \text{become} \\
& \text{v \text{become}} \\
& \text{√Root} \\
\text{b. } & \text{voiceP} \\
& \text{voice} \\
& \text{vPcause} \\
& \text{√Root}
\end{align*}

Alexiadou \textit{et al.} (2006a, b) propose that both causatives and anti-causatives have the same event decomposition: they both involve the verbal head \textit{cause}, but differ in whether \textit{voice} is projected or not (see also Kratzer 2005). That is, the causative alternation is really a \textit{voice} alternation, with the event decomposition in (20):

\begin{align*}
\text{(19) a. } & \text{The vase broke = } [\text{cause [the vase broken]}] \\
\text{b. } & \text{John broke the vase = [John [Voice cause [the vase broken]]]} \\
\end{align*}

These proposals express in the syntax the lexicalist hypothesis that anticausatives are inherently causative. As such, they can license PPs introducing causative adjuncts involving non-human causers or causing events, which according to Alexiadou \textit{et al.} (2006a, b) modify the causative event and are thematically licensed via adjunction to \textit{vcause}, as shown in (20a) for English, (20b) for Spanish and (20c) for German (example from Schäfer 2009), while agentive by-phrases are ruled out, due to the absence of \textit{voice}:

\begin{align*}
\text{(20) a. } & \text{The ship sank because of the explosion/ because of the storm/*by the enemy.} \\
& \text{b. El barco se hundió a causa de la explosión/por la tormenta/*por el enemigo.} \\
& \text{the ship \textit{se} sank because of the explosion/ by the storm/ *by the enemy.} \\
& \text{c. Die Tür öffnete sich durch einen Windstoß/*durch Maria.} \\
& \text{the door opened Refl though a blast-of-wind/by Mary.}
\end{align*}

As pointed out by Schäfer (2009), the claim is not that there is an implicit causer argument in anticausatives, but that there is a causative event: an event leading to the resultant state of the theme (but see Kallulli 2006, 2007 for a different explanation of the data in (20)). This causative event is unspecified, both for the causative and anticausative.
We assume that this view of anticausativization is essentially correct (see Schäfer 2008, 2009 for arguments supporting it). There is only one verb (or one verbal root), *romper*, which basically expresses an unspecified causing (COS) event and which is projected in the syntax with a *cause* predicate, as in (19). For simplicity purposes, we are following the analysis in Mendikoetxea (2000) by which the external argument is associated with the *cause* predicate, without an additional functional projection (though the analysis could be reformulated to include a voice projection introducing this argument). When the external argument is realized as a DP like *Juan, el vendaval* or *la piedra*, we have a canonical transitive structure like (21) with *vP* as the syntactic realization of the *cause* predicate and the verbal head expressing the resulting COS predicate:

(21) Juan/el vendaval/la piedra rompió el cristal.

The anticausative has the same syntactic structure as (21), but the external argument is realized as a null pronominal (*pro*), whose interpretation is that of the DP_{theme}, through what in Mendikoetxea (2000) is expressed as 'clause internal control', after obligatory externalization of the DP_{theme} to a position higher than *pro*. This proposal is in line with analyses of anticausativization as reflexivization, as advocated by Chierchia (2004), Reinhart (2002), Reinhart & Siloni (2004) and, more recently, Koontz-Garboden (2009). Under this approach the structure in (22a), a true reflexive, and the anticausative construction in (22b) are derived by means of the same rule: a lexical operation of reduction, which turns a transitive verb in the lexicon into an intransitive verb in the syntax. According to Chierchia (2004: 29), this operation identifies the two arguments of a relation, thereby reducing it to a property in which the external and internal argument are set to be identical closest Montague-style equivalent: $\lambda[\text{wash} (x) (x)]$, with the reflexive clitic as a marker of the reduction operation:

(22) a. María se lavó.
   ‘María washed herself’.
b. El barco se hundió.
the boat se sank
'The boat sank'.

This is also the end result of the clause internal control analysis, which according to Mendikoetxea (2000), applies in reflexives and anticausatives in (21). The meaning of the anticausative is a reflexive form of the causative predicate, but with anticausatives, the causing factor is not an action, as it is in true reflexives like (22a), but it must be understood statively: in (22b) the boat has or comes to have a property that causes its sinking (Chierchia 2004: 37) (but cf. Piñón 2001 and Folli 2002, against this interpretation). That is, what characterizes these constructions is that the theme argument participates in both subevents: the causative event and the COS event (8).

The presence of *se* is required for syntactic reasons, as the element *pro* is defective and cannot check the person feature of *T*. The clitic heads its own projection above *vP* (9).

(8) Reinhart’s 2002 analysis is inspired by Chierchia 2004. Sentences like those in (22) are derived from transitive counterparts by means of a reduction operation which eliminates either the external argument (in (22b)) or the internal argument (in (22a)). In her system theta roles are decomposed into two binary features: [+/- c], indicating whether the argument is responsible for causing the event or not, and [+/- m], indicating whether the mental state of the argument is relevant for the event or not. For the external argument to be reduced it must be just [+c]; underspecified for the contrast between agents and causers. As pointed out by Schäfer (2008: 119), neither lexical binding in Levin & Rappaport Hovav 1995 and nor Reinhart’s (2002) operation (also called ‘expletivization’) have been defined in a formal way and it is not clear how this can be done within standard semantic systems of function-argument application (see also Koontz-Garboden 2009 on this point), so these theories are simply descriptions of the facts under the hypothesis that verbs entering the causative alternation are basically dyadic.

(9) This analysis can account for the presence of *se* both in anticausatives and reflexives, as in impersonal constructions like (i), that also contain a null pronominal in subject position which receives arbitrary interpretation.

(i) a. Se trabaja mucho en esta oficina.
*se* work-sg much in this office
‘One works a lot in this office.’
b. Se venden casas.
*se* sell-pl houses
‘Houses are on sale.’

See Mendikoetxea 2008 for a detailed analysis of these constructions (see also Mendikoetxea, forthcoming for an overview of the different *se*-constructions).
Though this analysis is simply sketched here (see Mendikoetxea 2000, 2008 for justification), some evidence that it is on the right track is given by the fact that anticausatives like those in (24) do not allow bare NP themes (see Masullo 1992, Mendikoetxea 2000 and Cuervo 2008), suggesting that the DP_theme must be externalized, as opposed to typical unaccusative verbs like those in (26) that may be constructed with bare NPs. This will become important when we look at the properties of the dative argument construction in the following section.

(24) a. *Se cocieron patatas (ellas solas)
   se boiled potatoes (by themselves)

b. *Se han abierto puertas (ellas solas)
   se have opened doors (by themselves)

c. *Se fundió hielo (por sí solo)
   se melted ice (by itself)

   come women
   'Women come'.

b. Existen problemas.
   exist problems
   'Problems exist'.

In sum, the analysis establishes a relation between reflexives and anticausatives by claiming that they are both the result of clause-internal control, without resorting to a reduction rule and without deriving the anticausative constructions from the causative/transitive construction. In what follows we will put forward an analysis in which dative subject constructions are the result of the addition of a dative argument to a structure like that in (23) (our hypothesis (i)), via the introduction of a high applicative phrase (Pylkkänen 2008) between TP and the clitic projection (our hypothesis (ii)), so that the dative argument is associated with the first (initial) subevent and displays subject-like properties: the syntactic behavior of an external argument (our hypothesis (iii)).
3. ‘Subject-like’ dative arguments and syntactic structure

In this section we provide some evidence for the claim that the dative argument in anticausatives occupies a high position in the structure and has properties of an external argument (sec. 3.1), before moving on to the analysis itself in section 3.2.

3.1. The syntactic properties of the dative argument

Previous accounts of the dative argument of an anticausative construction analyse this element as an external argument with ‘quirky’ subject properties (Fernández Soriano 2000) (see note 4 above), in contrast with benefactive or goals, which are also realized as dative arguments, but remain VP-internal. The theme argument of the verb in anticausatives, on the other hand, behaves as an internal argument, although it triggers verbal agreement. In what follows we provide evidence for these claims.

The first argument in favor of our proposal comes from word order and information structure. It can be shown that the internal (nominative) argument occupies the postverbal (VP internal) position, whereas the dative DP behaves as the (most) external argument of the structure. We take the unmarked constituent order to be the one chosen when the whole sentence is interpreted as new information in out of the blue contexts (which can be an answer to a question like ‘what’s up?’). This being so, the contrast in (26a) vs. (26b, c) is explained if, as we claim, the dative is external to the VP and the theme remains inside VP. This is only true for accidental causer datives; as can be seen in (26d, e), goal or benefactive datives do not show the same behavior in these contexts:

(26) A: ¿Algo que contar?
   ‘Any news?/What’s up?’
B:  a. A Pedro se le ha quemado la comida.
    to Pedro se CLDAT has burned  the food
b. ?? Se le ha quemado la comida a Pedro
   c. ?? La comida se le ha quemado a Pedro
   d. #A Juan le han dado el regalo
      to Juan CLDAT have given the present
e. *A María le han roto el coche
to María CL\_DAT have broken the car

Second, when appearing under raising verbs like *parecer* ‘seem’, the dative argument in the subordinate clause raises to the matrix clause subject position, as in (27a) and (28a). Raising of the theme is impossible if the dative is present, as in (27b) and (28b) (which suggests that it remains inside VP), while in anticausatives without the dative it is the theme that raises, as expected (29):

(27) a. A Juan parece habérsele roto el coche.
to Juan seems to have.se.CL\_DAT broken the car
   b. ?? El coche parece habérsele roto a Juan
      the car seems to have.se.CL\_DAT broken to Juan

(28) a. A María parece perdérsele el niño continuamente.
to María seems to lose.se.CL\_DAT the kid all.the.time
   'María seems to lose the kid all the time.'
   b. ?? El niño parece perdérsele a María continuamente
      the kid seems to lose.se.CL\_DAT to María all.the.time

(29) a. El coche parece haberse roto.
   the car seems to have.se broken
   b. La comida parece quemarse.
      the food seems to burn.se
   c. Este niño parece perdersese continuamente.
      this kid seems to get.lost.se all.the.time

In this respect, this dative contrasts with goals, which never block raising of the subject (30a), with experiencers of Psych-verbs like *molestar* ‘bother’ (30b) and *gustar* ‘like’ (30c), which have been claimed to occupy a high position (cf. Belletti & Rizzi, 1988), as well as with benefactive datives (30d).

(30) a. Juan parece habérselo dicho a Pedro.
   'Juan seems to have told John about it.'
   b. Tu respuesta no parece haberle molestado a Juan.
      'Your answer does not seem to have bothered Juan.'
   c. La obra parece gustarle al público.
      'The play seems to be pleasant to the audience.'
d. Julia parece haberle estropeado el coche a su novio.
   'Julia seems to have broken the car to her boyfriend.'

A third piece of evidence which indicates that the dative is merged in a high position in anticausative constructions comes from the scope of adverbs like de nuevo, otra vez ‘again’. It has been noted that these adverbs are ambiguous in the sense that they can modify the whole event or the just the (change of) state resulting from the event expressed by the predicate (see von Stechow 1995, among others). This is the reason why a sentence such as (31) has two possible readings, (i) and (ii):

(31) John has broken the car again.
   i. It is the second time John has broken the car.
   ii. It is the second time the car has been broken.

One possible structural correlation of this is that the adverb again can leave John outside its scope, if it modifies the VP, or inside its scope, if it modifies a higher node including the external argument. Interestingly enough, the same ambiguity obtains with respect to the dative argument in the sentences we are analyzing. As the glosses indicate, the adverb can leave out of its scope only the dative, not the theme or any other internal argument.

(32) A Juan se le ha roto el coche de nuevo.
   to John se CLDAT has broken the car again
   i. 'It is the second time that John has accidentally broken the car.'
   ii. 'The car was previously broken and now John has accidentally broken it for the second time.'

As expected, this ambiguity does not obtain with other datives, such as goals or benefactives. In (33a) the interpretation in which the prize was given to someone else is out: Cela must have received the Nobel prize twice. For the same reason, John must have had his car stolen twice in (33b):

(33) a. A Cela le han dado el premio Nobel de nuevo.
   to Cela CL DAT have given the prize Nobel again
   'They have given the Nobel prize to Cela again.'
b. A Juan le han robado el coche de nuevo.  
  to Juan CL_dat have stolen the car again  
  'They have stolen John’s car again.'

The behavior of bare NPs can also indirectly provide evidence for the high position of causer datives. Subject bare NPs are always VP-internal, as in (25) above, and are interpreted existentially (see Diesing 1992 for existential interpretation). As mentioned in section 2, bare NPs are not possible in anticausative constructions (34a) (and (24) above). These constructions do not allow for the existential interpretation of the theme argument, which must be externalized as a consequence of the clause-internal control analysis described in sec. 2.2 above. What is relevant here is that the presence of the dative argument allows the theme to be realized as a bare NP, with existential interpretation, as shown in (34b, d). We take this as evidence that externalization of the theme argument is not required/allowed when the dative argument is added in a high position in the structure.

(34) a. *Se rompen vasos  
   se break-3pl glasses
b. A Juan se le rompen vasos continuamente.  
   to Juan se CL_dat break-3pl glasses all-the-time
  'Juan breaks glasses all the time.'
c. A Juan se le pierden cosas.  
   to Juan se CL_dat lose-3pl things  
   'Juan loses things.'
d. Al abuelo se le caen cosas.  
   to the grandfather se CL_dat fall-3pl things  
   'Grandfather drops things.'

From the facts presented above we conclude that the non selected dative in anticausative se-structures behaves like an external argument. Our account for this fact will be that this element is introduced by a high applicative head and behaves like a (quirky) subject. In what follows we will develop our proposal.

3.2. Syntactic structure and semantic interpretation

Having established that the dative argument has properties similar to those of external arguments, we now focus on the syntactic
analysis of the construction. Our initial hypothesis is that anticausative constructions with dative arguments are the result of adding a dative argument to a construction like that in (23). In principle, there are two possible positions for the dative argument: (i) the specifier of \( v \), where canonical agents are projected (Kalluli 1999), a position which is occupied by \( \pro \) in the anticausative construction (23) above or (ii) the specifier of an additional (higher) projection: an applicative head (Cuervo 2003). As Schäfer (2008: 3.5-3.6) observes, in dative anticausative constructions the dative can be integrated in the event in many different ways. The term ‘unintentional’ does not capture all facets of the construction: a number of subinterpretations can be distinguished and these are found crosslinguistically. Thus, in (35), the girl can be an unintentional or accidental causer, an involuntary or indirect facilitator (‘the girl let the doors open’) or an unexpected causer (‘the girl managed to open the doors, unexpectedly’). Whatever reading is obtained depends on contextual/pragmatic factors.

(35) \textit{A la niña se le abrieron las puertas.}
\textit{to the girl she CLDAT opened-3pl the doors}

It is this polysemy that leads Schäfer to claim that in the dative anticausative construction, the dative does not occupy the canonical \(<\text{Spec}, v>\) subject position. Canonical transitive subjects may act unintentionally or accidentally as suggested by the adverbs in (36), but the other two readings do not obtain.

(36) \textit{La niña abrió la puerta sin querer (al apoyarse).}
\textit{The girl opened the door accidentally (by leaning on it).}

We conclude with Schäfer (2008: 110) that “the relation between the dative causer and the event is much less constrained than the relation between canonical causers or canonical agents and the event.” From this, it follows that the dative argument is not introduced by \( v \), but by an additional head \(^{(10)}\).

\(^{(10)}\) Another argument used by Schäfer 2008 concerns the fact that the unintentional causer reading is licensed with pure unaccusatives that lack a position for the external argument and, arguably, do not project \( v \). However, we disagree with
We assume therefore that the alternative proposal by Cuervo (2003) that dative arguments in anticausatives are introduced by an applicative head is basically correct (our hypothesis (ii)). An applicative is an element (usually a morpheme) that increases the valency of a verb by adding a new core argument to it. In recent literature it has been claimed that there are (at least) two types of applicatives (Pylkkänen 2008): *high applicatives*, which denote a thematic role (a relation between an event and an individual) and combine with the VP by event identification, and *low applicatives*, which denote a relation between individuals (e.g. transfer of possession) and are internal to the VP. Cuervo (2003) proposes a three-way distinction: *low applicatives* which are applied to a DP-object, *affected applicatives* which are applied to a resultant state and *high applicatives* which are applied to a change-of-state (COS) event. Our proposal, in line with Cuervo (2003) and Schäfer (2008) is that the noncore dative under study is introduced by a high applicative head between T and the projection of the reflexive clitic.

(37)

Schäfer 2008 in our claim that this reading cannot be found with pure unaccusatives, as will be shown in section 4.
Though (37) represents a dative argument anticausative construction, it follows that the transitive structure *(Juan rompió el vaso)* involves simply a vP projection, with *Juan* in <Spec, v>; the anticausative construction *(el vaso se rompió)* is represented in (23): with pro (an unspecified cause) in the canonical subject position and the clitic heading its own projection; finally, the dative argument construction involves the projection of an applicative phrase above the clitic projection, whose head is the dative clitic *le* and whose specifier is occupied by the dative argument *a Juan*.

Syntactically, applicative heads introduce non core arguments, like the dative argument in anticausative constructions. In previous work, we have claimed that this element behaves as a *quirky* subject: it enters an agreement relation with the EPP feature of T, while the phi-features of T are valued through an agreement relation with the theme argument (see Fernández Soriano & Mendikoetxea 2010) (11). Semantically, applicative heads have very little content. They have been claimed to establish an abstract have-relation between the DP in their specifier and their complement (Harley 1995, 1998, 2002, Cuervo 2003, McIntyre 2006, and Schäfer 2008, among others). Depending on the complement they take, different (have-) relations and specific interpretations are obtained. Thus, low applicatives establish a have-relation between two individuals: the DP in the specifier of the applicative head is interpreted as the possessor of the DP in the complement position. In the case of the unintentional causer datives, Cuervo (2003) argues that the dative is applied to an inchoative (COS) event. The meaning obtained is that the dative DP ‘possesses the change-of-state event’. In other words, the applicative head expresses an abstract have-relation according to which dative causers ‘have the COS event’. As we will see, it is this participation in the initial (causative) subevent that is crucial for the accidental causer dative to display the properties just described.

At this point it is useful to go back to two ideas that have been put forward in section 2 above: that the semantic role associated with the subject of verbs like romper is that of effector, an underspecified

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(11) In quirky subject constructions, the internal argument can only be third person; the person constraint is dealt with in detail in Fernández Soriano & Mendikoetxea 2010.
causer (see 2.1 above), and that anticausatives are reflexive-like structures (see 2.2 above). In standard reflexive constructions like (22a) above, the subject argument is interpreted both as the agent/cause and the theme of the event denoted. In anticausatives the cause is not an action performed by an agent but it is interpreted as a property of the internal argument, which is somewhat responsible for the change of state denoted: it is stative causation, rather than dynamic causation (Brousseau & Ritter 1991). It is to this interpretation that the dative argument is added so that the structure ends up having two effectors. In fact, Koontz-Garboden (2009) argues that an event can indeed have more than one effector. Effectors can be of a variety of different thematic types. Piñón (2001: 18; fn. 9), for example, shows that a single event cannot have two effectors of the same type — i.e., it may not have more than one agent, more than one instrument, etc. —, but can have one of each. This is, we would like to claim, what we have in the structures under study: an accidental cause type of effector is added to the anticausative construction which already contains a (stative) causer. The causing subevent is understood as being (accidentally) initiated by the dative argument. In this case, a have relation is established between the dative and the COS. This has three consequences: (a) the dative is interpreted as the source or the event initiator (in the sense of Harley 1995, among others); (b) a binding relation is established between the dative and pro, which prevents the anticausative interpretation, and (c) the abstract possession relation may also be instantiated as a(n inalienable) possession or a part-whole relation between the dative argument and the theme argument. These properties are explored in the following section.

4. Effector datives and internally caused predicates: some consequences of the analysis

In this section we address our hypothesis (iii) and show that the subject properties displayed by the non core dative follow mostly from the fact that it participates in the first (initial) subevent of the predicate. Some consequences of this claim are also explored in this section.
In previous sections we have shown that the unintentional causer dative is projected in a high position in the structure and participates in the causing/initial subevent of the predicate. We have also adopted the idea that this dative is one type of effector (unintentional causer), like external arguments in general. These assumptions entail that for a dative argument to be interpreted as unintentional causer the predicate must contain a cause subevent. That is, the interpretation of the dative is not dependent on the COS subevent, but on the cause subevent. It follows that verbs projecting a COS event but not a causative event cannot have this type of dative argument. This is the case for internally caused COS predicates.

Internally caused COS verbs like palidecer ‘turn pale’, oscurecer ‘darken’, adelgazar ‘get thin’, envejecer ‘grow old’, crecer ‘grow’, florecer ‘blossom’, hervir ‘boil’, arder ‘burn’, enfermar ‘get sick’ and so on denote “causation initiated by, but also residing in, the single argument and hence dependent on its properties” (Levin & Rappaport Hovav 1995: 94). Thus, only some entities, by virtue of their own properties, blossom, grow, etc. In Spanish, internally COS verbs do not have transitive counterparts (i.e. they do not enter the causative alternation), are not constructed with a reflexive clitic and do not admit a reflexive by-phrase (por sí mismo, ‘by itself’), as shown in (38) (see Mendikoetxea 1999, 2000):

(38) a. El rosal floreció.  
   ‘The rose tree blossomed.’

b. *El jardinero/ el sol/ el abono floreció el rosal  
   the gardener/the sun/the compost blossomed the rose-tree

c. *El rosal se floreció  
   the rose-tree se blossomed

d. *El rosal floreció por sí mismo  
   the rose tree blossomed by itself

This has been taken to indicate that internally caused COS verbs lack a causative predicate as part of their lexical semantics (see Mendikoetxea 2000). That is they are ‘simple’ unaccusatives with no v [cause] projection: they just involve a verbal root expressing the COS predicate and a theme (see also Cuervo 2008). A consequence of this fact is that, since these verbs do not admit an independent event ini-
tiator, they cannot be constructed an accidental causer dative. So the unintentional causer interpretation is impossible in sentences such as (39), which have an affectedness reading instead:

(39) a. A María le **adelgazó** el niño.
    to María **CLDAT** got.thin-3sg the child
    b. A Juan le **palideció** la rosa.
    to Juan **CLDAT** faded-3sg the rose
    c. Al jardinero le **floreció** el rosal.
    to-the gardener **CLDAT** blossomed-3sg the rose-tree
    d. A mi padre le **crecieron** los tomates.
    to my father **CLDAT** grow-3pl the tomatoes

Very little attention has been paid to structures like those in (39) and their interpretation is controversial. Schäfer (2008), for example, taking data from Rivero (2004) and Cuervo (2003), claims, contrary to our assumptions, that sentences like (40) in Spanish and (41) in Italian contain an unintentional causer dative (we only give the translation provided for this meaning, but of course the affected reading is also possible) (12):

(40) A Juan le **florecen** los arboles.
    to John **CLDAT** bloom-3pl the trees
    'John causes the trees to somehow bloom (i.e., he is a good gardener).'

(41) a. A Francesca è bollito fuori il latte (per errore).
    to Francesca **CLDAT** boiled over the milk (by mistake)
    'Francesca accidentally caused the milk to boil over.'

(12) In fact, Cuervo 2003 is not very explicit about these constructions. Her claim is that what she calls ‘unintentional responsibility’, a subtype of the unintentional causer reading, is either unavailable or ‘less available’ in constructions with COS verbs that lack a transitive counterpart (though no explanation is provided for this fact). Thus, the most salient reading of a sentence like (i) (from Cuervo 2003: 187) is one in which Carolina is affected by the wilting of the flowers, but a reading in which Carolina has some unintentional responsibility (for instance for having left them in the sun or not watering them) is also available:

(i) A Carolina se **le** marchitaron las flores.
    to Carolina **CLDAT** wilted-3pl the flowers

It is our contention here that the unintentional causer interpretation is unavailable in sentences like (i) as well as in sentences with internally caused COS verbs in general. Whatever responsibility the dative may have in the event may only be contextually derived.
b. **A Franco** sono appassite tutte le piante in giardino (per errore)
to Franco are wilted all the plants in the garden (by mistake)
‘Franco accidentally caused all the plants in the garden to wilt.’
(Schäfer 2008: 69)

For us, however, no unintentional causer reading is available in these examples; there is no effector dative. First of all, as the glosses provided indicate, it is not clear that the cases above are to be interpreted as accidental causation: the element in the dative is not an accidental causer, though he may have some unintentional responsibility in the event (see note 12 above). From the definition of accidental causer or effector, it is entailed that it (accidentally) intervenes in a direct causation event. In this sense, these sentences are very different from the ones containing reflexively marked anti-causatives. Together with the (most salient) affected interpretation, the second meaning obtained in these cases, as the glosses indicate, is one of ‘indirect’ causation: ‘Juan makes the trees blossom’, ‘Francesca let the milk boil/ the plants wilt’ (13). Schäfer (2008), in fact, acknowledges that no example could be provided of accidental causer datives in Romanian or Albanian with unmarked anticausatives. In fact, some internally caused change of state verbs do not even allow for a dative at all. This is the case of oscurecer ‘darken’, for example. Interestingly enough, (42a) contrasts sharply with (42b) which contains the version of oscurecer(se) that enters the causative/inchoative alternation.

(42) a. *A Juan le oscureció el día (vs. El día oscureció)*
to Juan darkened the day (vs. The day darkened)

b. **A Juan se le oscureció la plata (porque le echó un producto corrosivo)**
to Juan *se* darkened the silver (because he used a corrosive product)

(13) This is why sentences with Psych-verbs do not take accidental causers either. The following sentences cannot mean that I did something such that María got mad or the child got scared, only an ‘internal’ interpretation is available: María got mad at me (without me doing anything). In the second case one (very salient) meaning is precisely ‘the child got scared without any apparent cause’:

(i) a. *Se me enfadó María.*

b. *Se me asustó el niño.*
In what follows we provide further evidence to show that datives with internally caused non alternating COS predicates are not effector datives (i.e. ‘dative subjects’).

4.1. Evidence for the impossibility of high applicative datives with non alternating verbs

To begin with, let us look at the types of adjuncts that appear in anticausative constructions with \textit{se}. As we mentioned above, adjuncts such as \textit{por sí sólo/a}, \textit{por sí mismol/a ‘by itself’} or \textit{él/ella solo/a ‘alone’} can appear with anticausative \textit{se}-predicates, indicating that the subject argument participates in both the initial (cause) and the COS subevent and may be interpreted as both theme (undergoer) and cause:

(43) a. El barco \textit{se} hundió por sí mismo.
   the boat \textit{se} sank by itself

   b. La puerta \textit{se} abrió por sí misma.
   the door \textit{se} opened by itself

As Koontz-Garboden (2009: 102) states it, \textit{por sí solo ‘by itself’} has as part of its denotation that there is a sole effector participant in the causing event. If this claim is correct, a prediction of our analysis is that if the dative causer is present, the type of adjuncts in (43) should be impossible. This prediction is born out, as (44) shows:

(44) a. *(A mí) el barco \textit{se} me hundió por sí mismo
   to me the boat \textit{se} CL\textit{sgDAT} sank by itself

   b. *(A Juan \textit{se} le abrió la puerta por sí misma
   to Juan \textit{se} CL\textit{sgDAT} opened the door by itself

Now an important fact that shows that the dative with internally caused COS predicates is not an effector dative is that with these predicates the above contrast is not obtained: the dative does not block the presence of the \textit{por sí mismo constituent}, when a context can be provided in which the \textit{by-itself} phrase can be added to the structure. Recall that internally caused COS verbs do not normally allow these adjuncts (hence the question mark), but these are possible in the contexts provided for the sentences in parentheses (see (38d) above):
Other properties support the idea that internally caused COS verbs do not take accidental causer datives as external arguments. Rather, the facts listed below suggest that datives with internally caused COS verbs are introduced by low applicative heads.

First, evidence from raising structures indicates that the dative argument with internally caused COS verbs occupies a low position in the structure, and hence it cannot undergo raising (46b, c), as opposed to the dative argument with externally caused COS in anti-causative constructions (46a) (and (27)-(28) above):

(46) a. ¿A María parece habér se le quemado la comida.
   to María seems to have.burn CLDAT the food
   ‘María seems to have burned the food accidentally.’

b. #A Pinocho parecían crecer le los monstruos
to Pinocchio seem to grow CLDAT the monsters
c. #A María parecía engordar le el pollo
to María seemed to get.fat CLDAT the chicken

Secondly, internally caused COS verbs without se and with a dative cannot take bare NP themes (cf. section 3.1, examples (34)). In this respect they contrast with the effector dative constructions under study. See the contrast between (47a) and (47 b,c)

(47) a. A Juan se le rompen cosas.
to Juan se CLDAT break things
b. *A Juan le engordan pollos
to Juan CLDAT get.fat chicken
c. *A María le florecen rosales
to María CLDAT blossom rose trees

We take this to show that in the case of internally caused COS verbs the dative does not behave as a subject and remains in a low
position, whereas the agreeing element displays subject properties (and hence cannot be a bare NP).

Third, the properties of the verb *caer* ‘fall’ are crucial in this respect. *Caer* has a form with *se* and another form (also intransitive) without *se*. The former is a simple unaccusative verb, with no causative predicate (close to English *fall*), while the latter is a typical causative verb in the anticausative form: with a causative subevent and a COS subevent (close to English *drop*) (see also Cuervo 2003). As expected, it is only the *se* form that allows for an effector dative, which is always interpreted as the source of the event (48a). With no *se*, in the unaccusative construction, the dative is a low applicative which bears a direct relation to the element undergoing movement: it indicates location or possession of location (Cuervo 2003: 145) and may be interpreted as a goal (48b). For things that fall naturally, only the variant without *se* is possible, hence the ungrammaticality of (48c) as opposed to (48d) in which the goal/location meaning is possible.

\[
\begin{align*}
(48) \text{a.} & \quad \text{*Se } & \text{me cayó el plato (de las manos: source).} \\
& \quad \text{se } & \text{CL}_{1sg{DAT}} \text{ fell-3sg the plate (from my hands)} \\
& \quad & \text{‘The plate fell (from me).’/ ‘I let the plate fall (accidentally).’} \\
\text{b.} & \quad \text{Me cayó un plato (encima: goal).} \\
& \quad \text{CL}_{1sg{DAT}} \text{ fell-3sg a plate on-top} \\
& \quad & \text{‘A plate fell on me.’} \\
\text{c.} & \quad \text{Se } & \text{me cayó un rayo} \\
& \quad \text{se } & \text{CL}_{1sg{DAT}} \text{ fell a ray} \\
& \quad & \text{‘I let a bolt of lightning fall.’} \\
\text{d.} & \quad \text{Me cayó un rayo.} \\
& \quad \text{CL}_{1sg{DAT}} \text{ fell-3sg a bolt of lightning} \\
& \quad & \text{‘A bolt of lightning struck me.’}
\end{align*}
\]

One further piece of evidence involving the verb *caer* supports the claim that effector datives are only possible with externally caused COS predicates that have a causative predicate as part of their event structure. It concerns the behavior of the adverb *de nuevo* ‘again’ with the verbs *caer* and *caerse*. This adverb can leave the dative outside its scope only in the case of the *se* variant (as in (32) above), where it is interpreted as source (49a). In the variant without *se* the only interpretation possible is one in which Juan has been struck by lightning once again (49b).
(49) a. **A Juan se le cayó el plato de nuevo.**
   It is the second time that the plate falls down and this time Juan is the causer.

   b. **A Juan le cayó un rayo de nuevo.**
   #It is the second time that a bolt of lightning struck and this time it was on Juan.

A final argument has to do with the inferential relationship observed between the causative and the anticausative structure of a given verb; a sentence such as *Juan rompió el plato* ‘Juan broke the plate’ entails *El plato se rompió* ‘the plate broke’. The consequence of this fact is that negation of the anticausative form is impossible if the causative is asserted (*#El plato no se rompió, Juan rompió el plato* ‘The plate didn’t break, Juan broke the plate’). Nevertheless, as Koontz-Garboden (2009) points out, this is not necessarily the case: there are contexts where the causative can be asserted while the corresponding anticausative is negated. This author provides examples such as the following (Koontz-Garboden 2009: 103):

(50) Oye, niñato, que [… ] el ordenador no se rompió sino que me lo rompiste TÚ!
   ‘Listen, Niñato, the computer didn’t break, but rather you broke it on me!’

According to Koontz-Garboden (2009), what is asserted in (50) is precisely that the computer was not the cause of its own breaking. This can be taken to mean that the cause argument is not eliminated in the anticausative version. In the cases under study, the situation is very clear since contrastive pronouns are used to mark the arguments that are implied. Interestingly enough, what the data show is that the contrast is obtained both between the *effector* dative and the agent of the transitive construction (i.e., accidental causer vs. agent) (51a), on the one hand, and between the anticausative-*se* structure with no dative and the one with an accidental causer dative (51b), on the other:

(51) a. **El vaso no se me rompió *(a mí)*, lo rompiste tú.**
   the vase not *se* CL1sgDAT break-3sg to me, CLAC broke you
   ‘I did not break the vase accidentally, you broke it.’

   b. **El vaso no se rompió, *se te* rompió a ti.**
   the vase not *se* break, *se* CL2sgDAT broke to you
   ‘The vase did not break, you broke it accidentally.’
In sum, what is negated in (51b) is that the theme is also the cause of the COS event and, instead, it is asserted that the dative argument is involved in the causing event. Again, we cannot obtain parallel structures with internally caused COS verbs. The case of caer, without se (52c), is especially clear (14):

(52) a. La leche no hirvió, \#te hirvió a ti  
the milk not boiled, CL$_{2sg DAT}$ boiled to you 
b. El rosal no floreció, \#le floreció a Juan  
the rose tree not blossomed, CL$_{3sg DAT}$ blossomed to Juan 
c. El rayo no cayó, \#te cayó a ti  
the bolt of lightning not fell, CL$_{2sg DAT}$ fell on you

These facts support the hypothesis that anticausative externally caused se-predicates involve a (underspecified) cause event and this fact allows them to take a high applicative node whose specifier is an argument, with dative case, interpreted as an accidental causer. The dative element participates in the initial subevent and behaves as an event initiator in the sense of Harley (1995) among others. This, in our opinion, is the property which distinguishes accidental causer effector datives from other (internal) non core datives, and which explains why the former datives do not appear with internally caused COS predicates. Following this line of reasoning, we will now concentrate on the properties associated with high applicative heads.

4.2. The possession relation

We saw in section 3.2 that high applicatives establish a have relation between their specifier (the effector dative in our analysis) and the COS event. We have also argued that the dative argument participates in the first subevent of the predicate, i.e. that it is the event initiator, by which it is interpreted as (accidental) causer and has subject-like properties as the highest nominal in the structure.

(14) The same is true for unergatives, as can be seen in (i):

(i) El niño no sonrió, \#te sonrió a ti  
the kid did not smile, he CL$_{2sg DAT}$ smiled at you
There are some data that seem to indicate that it is this *have* relation and the ‘initiator/source’ nature of the event that is needed to have dative subjects. In particular it can be shown that an accidental causer dative seems to be possible if the theme/undergoer is somehow ‘split’, in the sense that it is interpreted as ‘part’ of the dative: a part-whole relation can be established between the dative argument and the undergoer. In this way, the source or event initiator of the COS is an element in the dative which undergoes the change in one of its parts. This is an expected phenomenon if our analysis is on the right track. Some evidence for this comes, once again, from the behavior of internally caused COS verbs. We saw in the last section that internally caused COS verbs do not take subject effector datives. Thus, the added dative with those verbs has an affectedness interpretation and is introduced by a low applicative head which, among other things, accounts for its impossibility to undergo raising (recall (46) repeated below):

\[(53)\]
\[
\text{a. } \begin{array}{l}
\text{A Pinocho parecían crecerle los monstruos} \\
\text{to Pinocchio seem to grow.CL DAT the monsters}
\end{array}
\]

\[
\text{b. } \begin{array}{l}
\text{A María parecía engordarle el pollo} \\
\text{to María seemed to get.fat.CL DAT the chicken}
\end{array}
\]

Interestingly enough, the situation changes if there is a(n inalienable) possession relation between the dative and the theme and therefore the dative argument is itself also the ‘source’ of the COS, as in (54a, b), in which raising of the dative appears to indicate that it occupies a high position in the structure, like unintentional causer datives:

\[(54)\]
\[
\text{a. } \begin{array}{l}
\text{A Pinocho parecía crecerle la nariz.} \\
\text{to Pinocchio seem to grow.CL DAT the nose}
\end{array}
\]

\[
\text{‘Pinocchio’s nose seemed to grow.’}
\]

\[
\text{b. } \begin{array}{l}
\text{A María parecía engordarle la papada.} \\
\text{To María seemed to get.fat.CL DAT the double chin}
\end{array}
\]

\[
\text{‘María’s double chin seemed to get fatter and fatter.’}
\]

Furthermore, we also saw that internally caused COS verbs, with no *se* and with a dative, cannot take bare NP themes, as expected (see (47b, c), repeated below):
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(55) a. *A Juan le engordan pollos
to Juan CL\sub{DAT} get-fat-3pl chicken
b. *A María le florecen rosales
to María CL\sub{DAT} blossom-3pl rose trees

Again, there is a contrast in cases with (inalienable) possession, as the contrast between (55) and (56) indicates:

(56) a. A Juan le crecen fl ores / le florecen rosales en el pelo.
to Juan CL\sub{DAT} grow-3pl flowers / CL\sub{DAT} blossom-3pl rose trees in his hair
d. A Juan le brotan champiñones *(debajo del brazo).
to Juan CL\sub{DAT} grow-3pl mushrooms (under his arm)

Though we are not in a position to provide a full explanation for these facts, it is undoubtedly related to the (special type of) have relation that is found when the theme is part of the dative in internally COS verbs. In these cases, the theme is interpreted as the internal cause of the COS (Levin & Rappaport Hovav 1995), but when a dative is present and a part-whole relation can be established between dative and theme, the dative is also an internal cause, with a source/initiator reading, similar to the effector dative in anticausative constructions. In fact, though a COS is involved in constructions like (54) and (56), the most salient reading of these constructions is one of appearance and occurrence. Appearance and occurrence verbs are usually analyzed as a subclass of unaccusative verbs, together with verbs of existence, and different from COS verbs (Levin & Rappaport Hovav 1995). We would like to note here that it has been shown that with existential predicates (e.g. sobrar ‘to exceed’, faltar ‘to lack/miss’) the dative occupies a position higher than the theme in constructions such as (57) (Fernández Soriano 1999) and a possession relation is also established, which may account for the subject-like properties of the dative (see also Cuervo 2003: 4.1) (15):

(57) a. Al cuaderno le faltan tres hojas.
to the notebook CL\sub{DAT} are missing three pages.
‘The notebook is missing three pages.’

(15) Cuervo (2003: 4.1.2) proposes that datives with existentials are introduced by low applicatives, although they move to the subject position, hence their subject-like properties.
b. Al perro le falta una pata.
   ‘The dog is missing one leg.’

d. Me sobra una falda.
   ‘I have an extra skirt.’

5. SOME REMAINING QUESTIONS: THE SEMANTIC RESTRICTIONS ON THE DATIVE ARGUMENT

In this last section we will address some remaining questions, which relate to generalizations that have been proposed and that can be summarized by the following questions: (i) Why does the have relation established between effector datives and COS events have to be evaluated as a cause relation? and (ii) Why do effector datives have to be human? Both questions are related and the answer to them follows from two main assumptions that we have made (see Schäfer 2008 ch.3 for other arguments). The first one is that being ‘source/event initiator’ is a necessary condition to participate in the first subevent of the predicate and thus behave as an external argument (i.e. a subject) (16). The second one is that the unintentional causer is related to the change-of-state event by a relation of possession (see section 4). The structural reflex of this idea is that the dative is generated in a high position (the one related to the initial subevent of the predicate).

With this in mind, let us focus on first question above. The answer we provide is that there is no such correlation, that is, the basic interpretation obtained for subject datives is not cause but source of the event. The accidental causer reading is in some sense a byproduct of various factors, among which the (in general) human nature of the dative. But it can also be shown that the human restriction does not always hold (17). This takes us to the second question, the answer for which is also that the correlation (between effector role and human feature) does not hold.

(16) Schäfer 2008 shows that in Agul the unintentional causer is not only the possessor of the change-of-state event but actually the source.

(17) Schäffer 2008: 87 gives some evidence for this claim.
Our reasoning can again be exemplified with the behavior of the verb *caer* ‘to fall’. One can assume that (58a) constitutes a clear case of ‘unintentional causer’ dative. If this is the case, it does not seem plausible to propose a different analysis for (58b). But (58b), crucially, does not entail any (accidental) cause to be attributed to the dative. The same line of reasoning can be extended to (58c) and even to (58d), which contain non-human datives:

(58) a. A Juan se le cayó el libro.
   to Juan DAT to Juan CL fell-3sg the book
b. A Juan se le cayó el pelo.
   to Juan DAT to Juan se CL fell-3sg the hair
c. A la muñeca se le cayó el pelo.
   to the doll DAT to the doll se CL fell-3sg the hair
d. Al cepillo se le han caído los pelos.
   to the hairbrush se CLDAT have fell the hairs

It seems to us that it is hard to justify different structures for these sentences and it is also hard to figure out what such structures would look like, since an affected (or a goal) interpretation does not seem to be available at all. So the ‘human restriction’ also seems to be a byproduct of other factors. The reason why the datives under analysis are usually human is not, we would like to propose, because they are *causers* but because they are *datives*. Datives in general tend to be human crosslinguistically (18).

It has been claimed that the ‘human restriction’ for applicatives in general is actually related to possession (as Schäfer 2008 notes). More specifically, McIntyre (2006), for example, shows that non human affected datives are possible, but only if an inalienable possession is established between the dative and the theme. We claim that

(18) If the argument which has to be in the dative is non human, it is very common for it to appear in the locative or in another case (see Rigau 1978, Fernández Soriano 1999). This is a widely observed fact, which also explains contrasts such as the following:

(i) a. A Juan le sacaron un clavo del pie/del bolsillo.
   to Juan CL took-3pl a nail from his foot/pocket
   ‘They took a nail out of Juan’s foot/pocket.’
b. *A la mesa le sacaron un clavo del cajón*
   to the table CL took-3pl a nail from its drawer
this is also the case with effector datives, that is, non human dative subjects are possible only if they participate in the first subevent of the predicate. In this case, they are not cause but pure source (i.e., event initiators) and a relation of possession is established between the dative and the internal argument which undergoes the change of state. This can be seen in the following examples:

(59) a. **A la olla** _se_ le salió/cayó el asa.
    to the pot **DAT** _se_ CLDAT went.out/fell the handle.
    ‘The pot’s handle went out/fell.’  ‘The pot lost its handle.’

b. **A la lavadora** _se_ le estropeó el filtro.
    to the washing machine **DAT** _se_ CLDAT broke the filter
    ‘The filter of the washing machine broke.’

c. **Al juguete** _se_ le salió un muelle que tenía dentro.
    to the toy **DAT** _se_ CLDAT went.out a spring that it had inside
    ‘A spring went out of the toy / The toy lost a spring that was inside it.’

It is important to note that if the dative is not a source but a goal (which is always ‘internal’), it cannot enter the anticausative construction as an effector. This is what explains the contrast below:

(60) a. **A la lavadora** _se_ le salió el filtro.
    to the washing machine **DAT** _se_ CLDAT went out the filter
    ‘The filter of the washing machine went out.’

b. #**A la lavadora** _se_ le metió un insecto.
    to the washing machine **DAT** _se_ CLDAT got.into an insect
    ‘An insect got into the washing machine.’

In (60b) it is very clear that the cause (actually the agent) is not the dative but the element in the nominative _un insecto_ ‘an insect’; the dative can only be interpreted as a goal. The oddity of the sentence is also a consequence, we would like to claim, of the fact that the dative cannot be interpreted as the possessor of the agent.

6. Conclusions

In this paper an analysis has been provided for the syntactic properties and semantic interpretation of constructions in which a
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A dative element is added to the anticausative (reflexively marked) variant of a transitive verb in the causative alternation. In particular, we have focused on the interpretation of the noncore dative argument as an unintentional or accidental causer.

Semantically, we have referred to these elements as effector datives, following Koontz-Garboden (2009). These datives are added to verbs denoting an externally-caused change of state, which involves two subevents: a causing subevent and a resultative or change-of-state (COS) subevent (see e.g. Levin & Rappaport Hovav 1995) and, crucially, have an underspecified causing event. This is why these verbs participate in the causative alternation and can be constructed with noncore effector datives. Crucially, the cause predicate associated with these verbs is syntactically projected as a vP node, both in the causative and the anticausative construction. The dative argument is introduced by a high applicative phrase (see Cuervo 2003, Pylkännen 2008 and Schäfer 2008) and has subject-like properties, akin to those of an external argument, while the theme argument undergoing the COS remains internal to VP, i.e., it is never externalized although it shows nominative Case and triggers verbal agreement.

One of our main conclusions is that the ‘subject-like’ properties displayed by the noncore dative are directly related to the fact that it participates in the first (initial) subevent of the predicate, as is the case for external arguments in general (Harley 1995). These assumptions entail that for a dative argument to be interpreted as unintentional causer, the predicate must contain a cause subevent. From this it follows that verbs projecting a COS event but not a causative event cannot have this type of dative argument. Evidence is provided to show that effector datives are impossible with internally caused COS verbs.

We have also explored some consequences of the applicative nature of the node introducing effector datives, in particular, of the have relation that has been claimed to be established between the applicative and the COS. The idea we have developed is that it is this have relation and the ‘initiator/source’ nature of the event that is needed to have dative subjects. To show that this is the case, we have shown that internally caused COS predicates can take accidental causer
datives if an inalienable possession (or a part-whole) relation can be established between the dative argument and the patient/undergoer, so that the source or event initiator of the COS is an element in the dative which undergoes the change in one of its parts.

Finally, in the last section we have addressed two restrictions on the semantics of effector datives, in particular the fact that they seem to have to be human and that they are interpreted as causers. It has been shown that these restrictions do not actually have to hold (i.e. are not real conditions on high applicatives) but that they are a byproduct of other properties of effector datives (namely being datives and being event initiators).

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### Abbreviations

- **ACC**: Accusative
- **Appl**: Applicative
- **AS**: Argument Structure
- **CL**: Clinic
- **COS**: Change of State
- **DAT**: Dative
- **DP**: Determiner Phase
- **ext arg**: external argument
- **FEM**: Feminine
- **GEN**: Genitive
- **LSR**: Lexical Semantic Representation
- **MASC**: Masculine
- **NOM**: Nominative
- **NP**: Noun Phrase
- **Refl**: Reflexive
- **Pl**: Plural
- **PP**: Prepositional Phrase
- **VP/vP**: Verbal Phrase
- **Sg**: Singular
- **Spec**: Specifier
- **T**: Tense
- **TP**: Tense Phrase
- **1, 2, 3**: First person, Second person, Third person