

## Research Article

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# Stativity in the Causative Alternation? New Questions and a New Variant

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**Abstract:** This paper discusses whether capacity to license an internal argument and eventivity are default properties of so-called change-of-state verbs.

I draw attention to the claim that, in certain languages, the causative-inchoative alternation extends to a third, external-argument-only variant with stative behavior. Productivity and systematicity raise a host of problems for current generalizations on the Causative Alternation and change-of-state verbs for various reasons, starting from the long-held claim that unique arguments of change-of-state verbs are by default internal. Insofar as the causative component is independently realized in a noneventive, nonepisodic frame, this variant challenges (a) a widely agreed rule of event composition, whereby *cause*, if present, causally implicates *process*; (b) the claim that CAUSE(R) interpretation of the external argument is a byproduct of transitivity. The present discussion: (a) brings out a crosslanguage contrast bearing on default (CAUSE/UNDERGOER) interpretation of unique arguments in equipollent alternations; (b) provides new empirical data supporting the stativity of the (causative) outer *v* head; (c) substantiates important predictions in the literature (e.g. that verbs of causation should have stative readings; that external-argument-only variants of Object-Experiencer verbs should be found); (d) captures further verb classes allowing the alternation; and (e) shows crucial contrasts with other transitive-(in/a)transitive alternations involving null/arb objects. Aspect and determination of different (a)atransitivity alternations are central throughout.

**Keywords:** Unergativity; Transitivity; Inchoativity; Causativity; Alternation

One of the biggest problems for any theory of argument structure is the analysis of argument structure alternations. For instance, it is well-known that, in different grammars, many verbs alternate between transitive and unaccusative frames. This alternative in the expression of the arguments, illustrated with Spanish examples in (1), raises major questions, as well as a continuing theoretical debate, on what really belongs to the lexical entry of verbs showing the alternation and what is constructionally or compositionally determined in the course of a derivation.

- (1) a. *El viento despejó el cielo.*  
 the wind cleared the sky  
 ‘The wind cleared the sky.’
- b. *El cielo se despejó.*  
 the sky INCH cleared  
 ‘The sky cleared.’

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This question is tightly connected to another important theoretical contention concerning the relation behind the alternatives in (1) and the existence of a derivational relationship between them.

In the literature, two main lines of analysis stand out.

Various proposals analyze the transitive variant as the consequence of structure building – namely, as *composite dyadics* (Hale & Keyser 2002:10) obtained when *v*, a monadic nucleus, takes an independent *V* instantiating a *dynamic event* (Hale & Keyser 1993:71) as its complement – in an approach that resembles, in some manner, the analysis proposed, originally, by Dowty (1979), Lakoff (1970), Williams (1981), and later defended in a range of works from different theoretical orientations: e.g., Parsons (1990); Hale & Keyser (1993, 2002, 2005), Harley (1995), Pesetsky (1995) *i.a.*. Thus, in essence, to say that a verb participates in the causative-inchoative alternation means that the eventive head supplying the verb with the ability to license an internal argument ( $V_2$  in (2)) can freely appear as the complement of the originally monadic configuration yielded by  $v^0$  ( $V_1$  in (2); Hale & Keyser 2002: 175).

(2) [ $V_1$  [ $V_2$  DP [ $V_2^0$  turn CLEAR]]

(Hale & Keyser 2002)

Conversely, other authors argue that verbs allowing the alternation are listed with a fully specified argument structure (Grimshaw 1982, Chierchia 1989, Levin & Rappaport 1995 *i.a.*) – i.e., essentially, a complex (transitive) argument structure. Inchoative variants are derived by different (lexical) operations on argument realization (Levin & Rappaport 2005:52) or representation (cf. Grimshaw 1990, Williams 1981, Reinhart 2002 *a.m.o.*; see also, Koontz-Garboden's 2009 Monotonicity Hypothesis and the discussion summarized in Rappaport & Levin 2012). Alternating verbs then (3) essentially *detransitivize* under specific circumstances which license the *nonexpression* of CAUSE (cf. Levin & Rappaport 1995: 83 vs. Rappaport & Levin 2012, see also Rivero 2004 *i.a.*, but see Alexiadou *et al.* 2015).

(3) clear: [x cause [y become CLEAR]]

(Levin & Rappaport 1995)

Finally, non-derivational approaches (Rosen 1996, Doron 2003, Alexiadou *et al.* 2006, Harley 2008) propose that distinct argument structure configurations are alternatively constructed from a same source.

Nevertheless, and in contrast to what is generally assumed, the position taken with respect to the direction of the derivation does not necessarily condition the theoretical perspective adopted. For instance, even if the inchoative-as-basic view is commonly tied to constructionist accounts, more recent lexicalist proposals have also argued for this hypothesis, defending a simple (monadic) configuration as the lexically-defined argument structure type for these verbs (e.g., Rappaport & Levin 2012). Moreover, alternatives in the analysis also comprehend possible asymmetries in the domain within which such properties are determined – namely, a lexically-specified, invariant internal argument, contrasting with an external argument licensed under specific extra-lexical (conceptual) conditions in Rappaport & Levin (2012); or, notably, an internal argument which is seen as part of the lexical verb, as opposed to an external one, which is not considered internal to the lexically-projected configuration in Hale & Keyser (2002).

Now, for any analysis, there are some basic assumptions which are generally shared regardless of analytical choices (e.g., Hale & Keyser 2002, Levin & Rappaport 1995) and which are already visible in (2)-(3). Namely, it is widely agreed that Causatives are not semantically simplex entities, but rather are complex predicates composed of two different subevental structures (or primitives, depending on the approach adopted): a causing eventuality (notated below as  $e_1$ ), and a change-of-state event ( $e_2$ ). Another widely-assumed observation is that the relation between these two (sub)evental components is one of *implication*; in other words, that a matrix event ( $e_1$ ) causally implicates a subordinate (caused) event ( $e_2$ ), generally related to changes of state, as in (4). Related to this observation is the assumption that a 'causative' (outer) verb always encompasses (Levin 1993) or governs (Hale & Keyser 1993) the (unaccusative) light verb instantiating the change of state event (5). Both lexicalist and constructionalist accounts hence agree that a fundamental property of alternating verbs is that syntactic representation (argument structure realization) strongly correlates with semantic representation (event structure composition in the alternation), thus establishing an interesting homomorphism from one domain to the other.

(4) causal relation:  $e_1 \rightarrow e_2$ 

(Hale &amp; Keyser 1993: 68)

(5)  $V_{\text{TRANSITIVE}} =_{\text{CAUSE}} \text{ to } V_{\text{INTRANSITIVE}}$   
[ $V_1$  [ $V_2$  VP]]

(Levin 1993:27)

(Hale &amp; Keyser 1993: 69)

This syntax-semantics relationship is key to the empirical problem I want to discuss here. Crucially, in languages like Spanish – and apparently many Romance languages –, the inchoative-causative alternation seems to systematically allow a further possible instance: an external-argument-only variant, exemplified below in (6)c.

- (6) a. *El calor ablanda la cera.*  
the heat soften.3S the wax  
'The heat softens the wax.'
- b. *La cera se ablanda.*  
the wax INCH soften.3S  
'The wax softens.'
- c. *El calor ablanda.*  
the heat soften.3S  
'Heat is softening.'  
(English default reading: 'Heat is becoming softer.'  
(Spanish default reading: 'Heat has a softening property.'  
'Heat causes softness.' (≈natural property)

This additional variant, which is not commonly discussed in the literature, features two salient properties. First, it involves a unique (external) argument, which is by default interpreted not as UNDERGOER (as in the inchoative monoargumental) but as CAUSE or INITIATOR. Importantly, this reading does not seem to be generally available in languages like English, as the gloss suggests.<sup>1</sup> Second, in Romance, the predicate has a basic stative denotation and behavior, which can be seen, namely, in the incompatibility with progressive forms, as in (7), among many related restrictions (more in Section 2.2).

- (7) a. *El café está manchando los dientes.*  
the coffee is staining the teeth  
'(The) coffee is staining the teeth.'
- b. *Los dientes se están manchando.*  
the teeth INCH are staining.  
'(The) teeth are getting stained.'
- c. \**El café está manchando.*  
the coffee is staining  
(Intended) ??The coffee is having a staining property.

If situated in the context of causative-inchoative alternation, such a possibility – the free and systematic productivity of stative-causative variants [henceforth, SC] in which the internal argument is crucially missing – poses a theoretical and empirical challenge for various widely-accepted generalizations on the Alternation and alternating verbs, in at least three respects.

First, SCs constitute an immediate challenge for the commonly-shared assumption that the internal argument is a *default* (Rappaport & Levin 2012) or *constant* (Hale & Keyser 2002) constituent in the Causative

<sup>1</sup> It is in fact interesting to note the contrast between the cause(r) interpretation of the argument in Spanish (6)c vs. the prominent undergoer reading in English. Consider, for instance, an example like *The heat softens*, which is the English (literal) equivalent to the example in (6)c. This construction, in principle, delivers a default reading analogous to 'The heat becomes less intense.' In this sense, a previously unnoticed crosslanguage contrast obtains, suggesting that the difference in productivity of SCs has fairly deep implications at various levels. For instance, it seems that in English causative external-argument-only frames are possible with causative verbs resisting an unaccusative variant (e.g. *Smoking kills*, *Bleach disinfects*, etc.) in nonagentive causative variants.

Alternation – and, subsequently, to the prediction that unique arguments in change-of-state verbs are by default interpreted as internal (e.g., the Default Linking Rule, see Levin & Rappaport 1995, 2010). Again, such observations may seem correct if we limit the analysis to languages like English, in which the alternation seems constrained, to a certain extent, to internal-argument-licensing (transitive/unaccusative) variants. It does not, however, seem to be the case if we consider languages in which the formation of SCs from alternating change-of-state verbs is systematic and fully productive, as seems to be the case here – assuming, of course, that constructions like (6)c are correctly analyzed as a logical derivational possibility allowed by the standardly-assumed combinatorial system behind the alternation.

Second, by suggesting that the causative component may be independently realized in a stative variant, SCs are problematic for the basic principle of event composition ((4) above), according to which the projection related to the external argument and causational semantics, if present, automatically implicates the process subevent.

Third, the absence of an inchoative event (and, presumably, of the internal-argument-introducing  $V^0$ , under a strict semantics/syntax correlation) means that the interpretation of the DP sitting in the specifier position of  $vP$  as INITIATOR or CAUSE cannot be purely structural – more specifically, obtained as a result of merging the unaccusative structure ( $V_2$ ) under the original monadic verbal head ( $V_1$ ), as Hale & Keyser (2002:176), Chomsky (1995: 315), Zubizarreta & Oh (2007: 23), among many others, claim. Proposals like Hale & Keyser's rest on two basic premises: the external-argument-introducing head in verbs showing Causative Alternation ( $V_1$  in (5)) would be an *unmarked empty verb*, thus depending on composition with  $V_2$  to license the adequate (causative) interpretation; there are no theta-roles here; 'cause' is rather the *natural* interpretation assigned to the (dyadic) structure  $[V_1[V_2]]$  (Hale & Keyser 2002: 176). Under these two assumptions, the prediction that follows is that monadic occurrences like (6)c should either be not interpreted as causational, or else involve some sort of hidden internal-argument-licensing head producing the required  $[V_1[V_2]]$  configuration. This, however, is contrary to fact, as we will see below. If the analysis that I propose is correct, the sweeping premise that INITIATOR/CAUSE interpretations always coincide with an internal-argument-licensing structure would prove too strong. Notably, it should be restricted to languages in which internal-argument-less variants – along with defective interpretation of the sole DP as CAUSE/INITIATOR – are generally unavailable, as it might be the case, namely, in English.

Given the strong semantics/syntax homomorphism that characterizes the Causative Alternation, to support my claim – essentially, the optional (constructional) status of the internal argument, along with the internal-argument-introducing (dynamic)  $v$  head – , lack of eventivity in SCs is crucial. In light of data like (6)-(7), **two new theoretical questions** seem key to a successful analysis of the Causative Alternation: First, why should there be a connection between stativity and the absence of an internal argument here? Second, where in the grammar could the link between, say, an internal-argument-less frame and stativity be stated and dealt with more appropriately? While the first question rests on the semantic implications of the syntactic projection introducing the external argument – and the consequent discussion on the alleged semantic vacuity of this  $v$  head – , the second question follows from the need of a more accurate identification of those properties which can be safely analyzed as default, constant, or inherent to alternating verbs, as opposed as those properties that are optionally defined in the course of the derivation.

To answer these questions, I will work under the premise that the connection between intransitivity and noneventivity in this monoargumental variant can be readily captured by the standard nonderivational approach. The idea is that SCs can receive a natural explanation from direct composition with zero-causative morphology instantiating the initiational, external-argument-licensing,  $v$  head ( $v_{\text{CAUSE/INIT}}^0$ ; depending on the notation and ontology at work; cf. Folli & Harley 2007 vs. Ramchand 2008). While composition with a zero-causative morpheme is a constructional possibility widely discussed in the literature in the last decades (starting from Pesetsky 1995 *i.a.*), the possibility of direct root-composition with the causative head has already been considered in cases in which the internal-argument-selecting requirements of an otherwise transitive verb are inactive (*atransitivity*, McIntyre 2004: 550 (54) *i.a.*). Moreover, processless (stative) verbal configurations, headed by the same initiational  $v^0$  found in causative frames, figure in accounts of stative constructions with causative entailments (Ramchand 2008, Rothmayr 2009). Nonetheless, the important

point here is that, on the basis of these constructions, analyses like Rothmayr's correctly predict that verbs of causation can have an eventless (stative) reading.

In principle, a configuration crucially lacking the internal-argument-licensing projection – along with the corresponding semantic projection: *ProcP* in Ramchand's ontology; BECOME, more generally in the literature, e.g., Levin & Rappaport (1995),  $v^{\circ}_{\text{BECOME}}$  in Harley (2009), Folli & Harley (2007) *i.a.*, modulo finer implications in each framework – would have all the desired characteristics, strictly reflecting the properties seen in the data under discussion here. That is: an originally monadic structure, with a single (external) argument, eventless (i.e. purely stative) behavior, and morphological defectivity. In Spanish, this would mean absence of the inchoative clitic *se* in monoargumental variants, assuming that morphological markedness correlates to inchoativity/unaccusativity in the alternation (Haspelmath 1993 *i.a.*). Thus, a systematic and transparent syntax-semantics-morphology relation obtains: simpler argument structure, simpler event structure composition, along with simpler morphological composition, therefore suggesting that the internal-argument-licensing projection, semantically linked to the process (BECOME) event, may not be an invariable component in the configuration of alternating verbs after all.

Moreover, the data presented here would confirm a central claim put forward by Ramchand (2008) *i.a.* on the basis of English Causative-Stative constructions formed from psych verbs (but see also Arad 1998, Rothmayr 2009, and Berro 2015 on Basque); an idea that, note, is in line with Hale & Keyser's conception of a causative *v* head not introducing *per se* any event. On to Ramchand's account (2008: 49, emphasis added), "The process projection is the heart of the dynamic verbal event. The bounding eventualities of 'initiation' and 'result' are related *states*: the former being a *source, initiational or conditioning state* of affairs that gives rise to the process; the latter being the end result of the process." CAUSE and RESULT are thus seen as flanking *state* eventualities which can combine with a PROCESS projection to form a coherent single event. Importantly, Ramchand (2008: 49) goes on to highlight that "While it is relatively easy to see that the result of a process is a 'state', it has not (to my knowledge) been claimed that the causing subevent is a state. It is not clear what the evidence for this position would be from a simple inspection of the semantics of causative verbs, since the process and the initiation/causation of an event are difficult to tease apart." The Spanish data at hand provide strong evidence in both respects. Importantly, as Ramchand observes, such an alternative gives a simpler ontology, at the same time that it allows for a simpler and more empirically accurate analysis of the Causative Alternation. Furthermore, in Spanish, as I will show here, the analysis captures the behavior of additional verb classes which also allow a wider Causative Alternation.

To recap, in this paper I draw on previous work (Mangialavori Rasia 2018) to provide empirically-based arguments on both the independence and the basic eventlessness of the causative head – and, hence, the non-defective status of the internal argument in the Causative Alternation. Importantly, here the empirical discussion on the Causative Alternation is structured around two further verb classes with transitivity alternation: one showing syntactic behavior and semantic properties crucially predicted by SCs – i.e., psych verbs –, and one which constitutes the exact opposite of the case under consideration here – notably, verbs showing PRO/Arb Object Alternation (in the terminology of Levin 1993), and in particular, an Unexpressed Object Alternation which shares with SCs the denotation of a property or characteristic of the subject, though crucially differing in central respects. Finally, I introduce the suggestion that a brief reference to more nuanced ontologies of light verbs, and, especially, of external-argument-introducing light verbs, could be particularly useful in dealing with various facts surrounding SCs and (in)transitivity alternations more generally.

## 1 Analytical options & analytic data

There are two main ways of accounting for SCs. One option is to assume that SCs involve a null or nonovert internal argument. The other option, which seems fundamentally simpler, is to claim that the object is missing in the more radical sense of a total absence of structure. To support the hypothesis that SCs lack the internal-argument licensing *v* head, along with the corresponding component in the semantic structure – the change-of-state process that is responsible for the dynamic properties of this class of verbs – it is

important to show that SCs are distinct in nontrivial ways from nonovert object constructions. Later, I will show how a internal-argument-less variants of change-of-state verbs produce predicates crucially lacking event denotation as well, as expected on the basis of standard analysis of the alternation and the event/argument structure correlation behind it (e.g. Hale & Keyser 1993, but also in Ramchand 2008).

### 1.1 Why not a null object?

Nonovert arguments (as a cover term for implicit arguments, *pro*, A/A'-traces) are relevant to various syntactic phenomena in Romance languages (Rizzi 1986, Authier 1987, Bouchard 1987, Raposo 1986, Williams 1986 *i.a.*). They may seem a compelling solution here for several reasons. For example, it has been noted that null object constructions generally appear in generic tenses (cf. Rizzi 1986), like SCs. Moreover, the presence of a null/arb object would have the advantage of preserving the traditional assumption that the internal argument is a default constituent in the argument structure of verbs entering the causative-inchoative alternation (Hale & Keyser 2002, Levin & Rappaport 1995, Rappaport & Levin 2010, *i.a.*), or, similarly, that these verbs are correctly classed as *bona fide* unaccusatives or transitives.

There are, however, two important problems. First, prototypical classes of verbs showing causative-inchoative alternation – namely, verbs of (internally-caused) change-of-state (Hale & Keyser 2002: 124; Levin & Rappaport 1995: 80 *a.m.o.*) – do not readily allow null/arb objects, as Levin & Rappaport (1995, 2010), among many others, have noted. Second, if SCs were correctly analyzed as null/arb object instances, one would expect all the hallmarks of nonovert-object constructions. And yet, a consistent asymmetry in distributional patterns clearly suggests otherwise. In fact, typical null/arb contexts draw an opposition between SCs and *true* sorts of (in)transitivity alternations involving nonovert objects, such as PRO-*arb* Object Alternations, Unspecified Object Alternations, Property of Agent Alternations, etc. (cf. Unexpressed Object Alternations, Levin 1993, see 3.2 below).

Consider, for instance, (8). Null Object constructions with verbs typically showing Unspecified Object Alternation, like *cooking verbs* (Levin 1993, 2009b), allow both (a) object-oriented depictives with generic (null/implied) arguments and (b) resultative secondary predication. As (9) shows, this is not possible with SCs.<sup>2</sup>

#### (8) NULL OBJECT (UNSPECIFIED OBJECT ALTERNATION)

- a. *Este chef sólo compra /cocina {precongelado(s)} / natural(es) / orgánico(s).*  
 this chef only buys cooks prefrozen(.PL) natural(.PL) organic(.PL)  
 'This chef only buys/cooks prefrozen/natural/organic [stuff/products].'
- b. *Este chef cocina/asa {rico /salado}.*  
 this chef cooks roasts tasty salty  
 'This chef cooks/roasts tasty/salty [meals].'

<sup>2</sup> The prototypical test for null objects (i) also shows consistent contrasts between SC and PRO/Arb alternations:

- (i) a. *Este cocinero prepara/cocina productos artificiales y éste, naturales.* (Prop. of Agent Alt)  
 this cook prepares/cooks products artificial and this Ø natural.pl  
 'This cook prepares/cooks artificial products and this one, natural [ones/stuff].'
- b. *Este cuchillo corta materiales multi-porosos y éste, orgánicos.* (Prop. of Instrument Alt)  
 this knife cuts materials multi-porous and this organic.pl  
 'This knife cuts multi-porous materials and this [one], organic [ones/stuff].'
- (ii). <sup>?</sup>*Este horno calienta productos artificiales y éste, \*naturales.* (SC)  
 This oven heats products artificial and this Ø natural  
 This oven causes heat artificial [products] and this one, natural [ones].'

(9) SC

- a. *Este horno sólo calienta/cocina (\*precongelado/\*natural/\*orgánico).*  
 this oven only heats cooks prefrozen natural organic  
 (Intended) ‘This oven has only heating/cooking capacity (prefrozen/natural/organic).’
- b. *Este horno calienta (\*rico / \*saludable).*  
 this oven heats tasty healthy  
 (Intended) ‘The oven has heating capacity (tasty/healthy).’

An interesting fact about Spanish (and, presumably, languages with systematic SC formation) is that a construction like *El horno calienta precongelado* (lit. ‘The oven heats pre-frozen’) could be accepted, with the adjective predicating over the external argument. The result, however, renders conceptually odd (e.g., ‘The prefrozen oven causes heat’).

Similarly, transitive frames – including implicit arguments (cf. Bhatt & Pancheva 2006:13 *i.a.*) and passives – allow PRO-control, as in (10). Apparently, this is not allowed in SCs either. Again, the only grammatical reading is one in which the adjective/participle modifies the external argument, which gives, also here, a conceptually odd result, as in (11).

(10) Transitive causative

- Los/Se {secan/calientan} (para ser pintados/doblados).*  
 ACC/PAS dry.3p/heat.3p to be painted/folded  
 ⇒ ‘They dry them out/heat them up to be painted/folded.’ (Transitive)  
 ⇒ ‘They are dried/heated to be painted/folded.’ (SE-Passive)

(11) SC

- El sol {seca/calienta} \*(para ser pintado(s)).*  
 the sun dries/heats to be painted  
 (intended) ‘The sun causes dryness/heat to be painted.’

A well-known test for null objects in Italian gives similar results. In the original example, reproduced in (12), a null/arbitrary implicit argument (cf. Di Sciullo 1990, Massam 1989) binds a participial or adjectival predicate. By contrast, (13) and (14) show with SCs the same restriction found with secondary predication in (9) above.

(12) NULL OBJECT

(Italian)

- Un dottore serio visita Ø<sub>i</sub> \*(nudi).*  
 a doctor serious visits naked.PL  
 ‘A serious doctor visits nude \_\_.’ (Rizzi 1986)

(13) SC

(Spanish)

- Este fármaco cura/alivia (\*afebrados/\*desnudos/\*enfermos)*  
 This drug heals soothes feverish.PL PL naked.PL sick.PL  
 (Intended) ‘The drug has healing/soothing properties on feverish/ naked/sick.’

(14) SC

(Italian)

- Il farmaco cura/allevia (\*influenzati / \*nudi / \*ammalati).*  
 This drug heals soothes feverish.PL naked.PL sick.PL  
 (Intended) ‘The drug has healing/soothing properties on feverish/naked/sick.’

Italian data also shows that SCs are not compatible with the partitive clitic *ne*, which is the traditional (but not undebated) test for unaccusativity (Burzio 1996, Russi 2008:113, Borer 2005:37 *i.a.*). In (15)b the partitive clitic cannot be licensed insofar as a focal post-V quantificational expression is missing.<sup>3</sup>

- (15) TRANSITIVE (Italian)
- a. *La radiazione infrarossa ne riscalda/brucia \*(la metà)*  
 the radiation infrared of-them heats burns (the half)  
 ‘Infrared radiation burns (half) of them.’ (transitive causative reading with null object)
- SC (Italian)
- b. *La radiazione infrarossa (\*ne) riscalda/brucia.*  
 the radiation infrared of-them heats burns  
 ‘(\*of them,) infrared radiation has heating/burning capacity.’ (SC reading)

Similarly, SCs do not allow null object quantification (16) and they do not bind reflexive pronouns (17), two well-known properties of null and implicit arguments (Rizzi 2003 *i.a.*).

- (16) *El radiador calienta (\*todos/\*algunos).* (Spanish)  
 the radiator heats all some  
 ‘The radiator has heating capacity/causes heat (\*all/some).’
- (17) *La injusticia {entristece/ enoja} (\*consigo mismo).*  
 the injustice saddens maddens with-him self  
 ‘Injustice saddens/maddens (\*with oneself).’

According to Rizzi (2003), in Romance, an understood object with arbitrary interpretation can serve as an antecedent for anaphor also in verbs denoting a causative (psych) change of state (cf. (17) vs. Rizzi’s Italian example *La buona musica riconcilia Ø con se stessi*. ‘Good music reconciles Ø with oneself.’, with a Spanish version provided in (18)a).<sup>4</sup> Yet, in Spanish (as in Italian), the fact that either an accusative or inchoative clitic is required to bind the reflexive, as (18)a-b respectively show, or else to license the quantifier, as in (19), suggests that the root needs to combine with the internal-argument-licensing (V<sup>0</sup>) head first – that is, instantiate either transitive or unaccusative variants – in order to bind the anaphor.

- (18) transitive
- a. *La injusticia \*(lo) {entristece/enoja} (consigo mismo)*  
 the injustice ACC saddens maddens with-him self  
 ‘Injustice makes him [feel] sad/mad at himself.’
- INCHOATIVE
- b. *\*(se) {entristece/enoja} (consigo mismo)*  
 INCH saddens/maddens with-him self  
 ‘He gets sad/mad at himself.’

- (19) (transitive)causative/inchoative

<sup>3</sup> Theoretically, partitive case can only be assigned by a verb to a theta-marked argument (see Belletti 1988, Rizzi 2003). Arguably, (15)b is problematic because a simpler vP structure (that is, a configuration where there is no internal-argument-licensing V<sup>0</sup> composing with the root) would simply lack the capacity to license th-marked internal arguments – assuming that the inner DP can be licensed only if it is introduced as a specifier at the embedded V-projection, as argued in Hale & Keyser (2002: 240).

<sup>4</sup> It might be interesting to note that the construction proposed by Rizzi seems to hold only in a specific type of transitivity alternation: the Understood Reciprocal Object Alternation (Condoravdi 1990, Croft 1991, Levin 1993). Importantly, the reciprocal is not allowed in SCs, thus establishing a contrast with two sufficiently different types of argument structure alternation (see Sections 3.1 and 4 below).



\*(*Los/Se*)      *reconcilian*      (*a*)      *todos*.  
 ACC.3PL SE      reconciles      to      all  
 ‘It reconciles them all/all of them reconcile.’

Cliticless variants also fail to license either the reflexive or the (internal-argument-oriented) quantifier. Accordingly, (20) shows that the inchoative clitic is crucial to license *ne* (along with the quantificational phrase) in monoargumental constructions.<sup>5</sup>

(20) Unaccusative (inchoative)

a. \*(*se*)      *ne*      *arrossa(ro)no*      *la*      *metà*.  
 INCH/REFL      PART      redder.pst.3pl      the      half  
 ‘Half of them turned red.’

SC

b. (?*ne*)      #*arrossarono/arrossa*      (\**la*      *metà*).  
 PART      redder.pst.3pl      redder      the      half  
 ‘Of them, (potentially) #caused/cause redness.’

The inchoative clitic *se* is not only nontrivial, but centrally related to eventive entailments also. Insofar as morphological (se-)markedness in the alternation can be safely related to the realization of a nondefective ( $V_{\text{BECOME}}$ ) head (Harley 2012 *i.a.*) – which is, recall, the head instantiating the change-of-state semantic relation (Hale & Keyser 2002: 100) – , a cliticless monadic frame should reject perfective inflection, since it would lack event denotation. As expected, a ( $\text{BECOME}/\text{proc}$ ) $V^0$ -less configuration lacks episodic change-of-state interpretation, as (21) shows.

(21) *Los*      *productos*      \*(*se*)      *suavizaron*.  
 the      products      INCH      softened  
 ‘The products softened’      CLITICIZED (INCHOATIVE)  
 #‘The products had softening capacity’      NONCLITICIZED (SC)

In this sense, SCs would crucially show that morphological defectiveness correlates with structural defectiveness: that is, no merger with the internal-argument-licensing structure (the independent dynamic  $V^0$  in Hale & Keyser’s account), no special morphology in monoargumental frames; and, consequently, no complex syntactic/semantic structure (no understood affected object implications, no process implication).

Significantly, bare quantifiers are allowed under an eventive causative reading (equivalent, namely, to ‘The radiator caused some of *them* to become hot’ in (22)), but not under the stative-like reading systematically delivered by the monoargumental causative (cf. the gloss in (22) vs. (16) above).

(22) *El radiador calentó* \*(*todos/algunos*)      TRANSITIVE  
 ‘The radiator heated \*(all/some [of them]).’

In Spanish varieties in which unmarked inchoative variants are productive, like Argentinian Spanish, a construction like (22), without the quantifier, could only be admitted as a monoargumental (inchoative) variant. Perfective tense – along with the consequent telic entailment – is readily licensed under the condition that the sole DP be interpreted as UNDERGOER and not as CAUSE or INITIATOR. Thus, eventive behavior is visible in an unaccusative monoargumental frame, paraphrasable as ‘The radiator became hot’, but not

<sup>5</sup> The question mark in (15)b refers to the fact that incompatibility of the partitive clitic with configurations lacking internal arguments is not that strict in Italian. While it has been noted that unergatives can ultimately combine with partitive *ne* under specific conditions – namely, present tense (see Levin & Rappaport 1995: 275 *a.m.o.*, see also Mateu & Massanell 2017) – , a construction like *Ne bruciano il 40 per cento* can only be naturally interpreted as an unmarked sort of inchoative (‘Of them, 40% burn up’), but not as SC ((intended) ‘Of them, 40% cause burns’).

in the causative (external-argument-only) monoargumental with the meaning ‘The radiator is a cause(r) of heat.’ I take such contrasts to support the proposed correlation between argument structure and event structure that is central to the Causative Alternation even in transparent equipollent pairs. This is important as the correlation between syntactic and semantic representation that links eventivity (specifically, change-of-state denotation) to the structure required to license an internal argument – assuming that this is done by virtue of the head-complement relation; and that this capacity results from the combination, via Merge, with  $V^0$  (Hale & Keyser 2002: 2) – is preserved in exactly in every case.

There are other relevant empirical observations which we will not discuss here. For instance, while (17) above suggests that SCs are systematically productive with unpassivizable verbs and verbs generally not allowing intransitive (unspecified object) variants like *fill* (cf. (23)) (cf. Levin 1993), (24) provides few examples of what is a highly productive construction in Spanish (and, apparently, in many other Romance languages, as the Italian parallel examples suggest).

- |  |           |
|--|-----------|
| (23) * <i>Roberto llena</i> Ø.                       | (Spanish) |
| * <i>Roberto riempe</i> Ø.                           | (Italian) |
| * <i>Roberto fills</i> .                             | (English) |
| (24) SC  |           |
| a. <i>El pan llena (bastante).</i>                   | (Spanish) |
| <i>Il pane riempe abbastanza.</i>                    | (Italian) |
| * <i>The bread fills enough.</i>                     | (English) |
| ‘Bread is (quite) satiating.’                        |           |
| b. <i>Este producto suaviza.</i>                     | (Spanish) |
| <i>Questo prodotto ammorbidisce.</i>                 | (Italian) |
| * <i>This product softens.</i>                       | (English) |
| ‘The product is softening/has softening properties.’ |           |
| c. <i>La música clásica relaja.</i>                  | (Spanish) |
| <i>La musica classica rilassa.</i>                   | (Italian) |
| * <i>The classical music relaxes.</i>                | (English) |
| ‘Classical music is relaxing.’                       |           |

## 1.2 Why eventless monoargumental (and eventless CAUSE)?

Assuming that the commonly-proposed correlation between event structure and argument structure in the Causative Alternation is generally correct, and if it is true that transitivity is not defective – i.e., under the hypothesis that the ability to license the internal argument is a result of composition with the independent  $V^0$  –, we would logically expect the presence of a null object to involve, in consequence, the presence of the specific head described as introducing the *dynamic* event (e.g., Hale & Keyser 1993). I refer to the semantic change-of-state relation (Hale & Keyser 2002) (broadly) identified with the BECOME operator in Levin & Rappaport (1995), the *constructed* BECOME event in Rothstein (2012:87), the nondefective  $v^0_{\text{BECOME}}$  for Folli & Harley (2005), or Ramchand’s (2008, 2014)  $v^0_{\text{PROC}}$ . Nevertheless, as we will see next, finer-grained aspectual tests applied to SCs, however, give results consistent with an eventless (stative) predication crucially lacking change-of-state denotation (see also Levin & Rappaport 1995: 160 for comparable Dutch examples).

First, and in contrast to internal-argument-licensing frames ((25)b/b’), SCs variants remain invariably atelic. Neither event endpoint nor accomplishment denotation (result state) are possible.

- |   |  |
|---|--|
| (25) SC   |  |
| a. <i>El grafito calienta *(hasta quedar incandescente/fluido).</i> |  |
| the graphite heats until remain incandescent fluid                  |  |
| (Intended) ‘Graphite causes heat (until incandescent/fluid).’       |  |

## CAUSATIVE (TRANSITIVE)

- b. *El grafito \*(lo) calienta (hasta quedar incandescente/fluido).*  
 the graphite ACC heats until remain incandescent fluid  
 ‘Graphite heats it up until incandescent/fluid.’

## INCHOATIVE (TRANSITIVE/UNACCUSATIVE)

- b'. *El grafito \*(se) calienta (hasta quedar incandescente/fluido).*  
 the graphite INCH heats until remain incandescent fluid  
 ‘Graphite heats up until incandescent/fluid.’

Clitics are, again, nontrivial. Also here, inchoative and accusative morphology strongly correlate with the capacity to license an event endpoint which is otherwise not easily accommodated, therefore supporting idea of minimal pairs created by the independent verbal head introducing the internal argument. Crucially, the contrast between SCs and inchoative frames coincides with an opposition between an INITIATOR/CAUSE vs. an UNDERGOER interpretation of a unique DP (*el grafito* ‘the graphite’ in (25)), respectively, in two maximally-contrasting monadic variants. This means that the alternatives contrast not only in morphological marking (i.e., *se*-cliticization), but also in event(ive) composition. Hence, the minimal pair drawn by presence/absence of relevant morphology reflects a nontrivial contrast between eventless (nondynamic) vs. eventive causative predicates when SCs are compared to transitive instances of CAUSE(R) argument. In turn, the observation that SCs do not derive resultative readings is consistent with the data supporting the absence of null objects in SCs (recall (9)).

In fact, if we add a bare quantifier like *muchos* ‘many’ – a strategy commonly used to track null objects in the literature (Cattaneo 2008 i.a) (recall (16)-(19) above) – ,<sup>6</sup> the interpretation shifts to an eventive (change-of-state) predicate, thus allowing perfective inflection in consequence, as in (26). As a result, the oddity of <sup>?</sup>*El sol secó* ‘The sun dried’ is natural given not only the infelicity of these verbs with unspecified objects (Levin 1993), but also as a consequence of the stativity – and the restriction to generic tenses – noted in SCs.

- (26) a. *El sol ha calentado/secado \*(muchos).*  
 the sun has heated dried many.pl  
 °k[Of them,] The sun has heated/dried many.’ (Null Object reading)  
 ! [Of them,] the sun has had heating/drying capacity many.’ (SC reading)
- b. *Cuando llegó, el sol había calentado/secado \*(la mitad).*  
 When arrived the sun had heated dried the half  
 °k‘When (he/she/it) arrived, the sun had heated/dried half (of it/them).’ (Null Object)  
 !‘When (he/she/it) arrived, the sun had had heating/drying capacity \*half (of it).’ (SC)

Similarly, while a (null) quantified object can also measure the event’s telicity, argument-dictated telicity is impossible in SCs. Here, there is no reading in which the argument measures out the event in a part-structure relation – and hence the event would count as completed when the entity is fully affected (Rappaport & Levin 2010 i.a.). This falls out because there is no affected entity undergoing a change here; and, more importantly, there is not a proper event going on (i.e., no episodic predication). Instead, SCs rather convey a dispositional predication associated to an inherent property of the subject, more in line with a *dispositional* sort of causation (Copley 2018 i.a.).<sup>7</sup>

<sup>6</sup> In principle, the same effects appear in Italian equivalents (cf. Spanish (27) with its Italian counterpart *Il sole brucia (#in un minuto/completamente) \*(alcuni)* ‘The sun causes burns (#in a minute/completely) \*some).

<sup>7</sup> Among other things, note that the corresponding definition of the subject on a dispositional sort of predication reflects the entailments of SCs:

- (i) Structure of a (dispositional) intention: an intender *y*, who is the **holder of an intentional state *e***, which **in certain circumstances** directly causes an eventuality *e*<sub>0</sub> that instantiates the eventuality description *p* intended by *y* (Copley 2018: 16).

The facts that, first, culminativity and endpoint modification are only possible in (generic) null object constructions, but not in SCs (27), and, second, that null object constructions allow imperatives, as in (28) (cf. Instructional Imperative Alternation, Levin 1993) while SCs do not (29), become important (and welcome) observations in light of the predicted lack of eventivity in SCs. If it is true that, for an eventless class – notably, states – the impracticality of the imperative is expected (cf. Jackendoff 1990 *i.a.*, Levin 2009a, Rothmayr 2009), then (29) supports the proposed absence of V<sup>o</sup> in SCs (i.e., the independent object-licensing head instantiating the change-of-state semantic relation). More importantly, it provides empirical support for the classification of the causative head as a stative (or, at least, as an eventively-unmarked) component.

(27) SC (Spanish)

*El sol quema (en un minuto/completamente) \*(algo/alguno).*  
‘The sun burns \*(some) in a minute/completely.’

(28) NULL OBJECT (Instructional Imperative Null Object Alternation, Levin 1993) (Spanish)

*Calienta a fuego fuerte, revolviendo.*  
heat Ø at strong fire, stirring Ø  
‘Heat (up) on high fire, stirring.’

(29) SC Instructional Imperative Null Object

a. *#Horno, calienta!* ‘Heat!’  
(intended) ‘Oven, have heating capacity!’

b. *El horno calienta (#a fuego fuerte).*  
(intended) ‘The oven has heating capacity (at high flame).’

Another relevant difference between (28) and (29) is the affinity with an adverbial describing the way in which the event(uality) unfolds. As (29)b suggests, SCs are incompatible with manner modification, arguably because there is no proper event for the adverbial to target, but rather a mere cause (non-result(ative)) *state* (e.g., bearing a property that can be interpreted as possible cause). A null object construction not only naturally accommodates these modifiers, but also involves a proper transition (change-of-state) that is not necessarily implied in SCs, given its inherent non-episodic denotation. Further, the incompatibility with manner modification introduces a nontrivial difference with middle constructions. As known, a salient property of middles is an additional meaning – a modal interpretation – which is independent of, but central to, the licensing of the adverbial (Hale & Kayser 1986, Massam 1992).

(30) a. *El chocolate \*(te) engorda (fácil).*  
<sup>ok</sup>Chocolate makes you fat (easily) (Transitive)  
\*Chocolate is fattening (easily) (SC)

b. *Este horno \*(se) calienta (como un sueño/fácil).*  
<sup>ok</sup>This oven is heated up (like a dream/easily) (Middle)  
<sup>ok</sup>This oven heats (itself) up (like a dream/easily) (Inchoative)  
\*This oven has heating capacity (like a dream/easily) (SC)

The distribution of adverbials in minimal pairs created by passive (middle) morphology (*se*) in cases like, say, (30)b, shows that the middle construction contains not only a null/arbitrary/implied object anaphorically linked to the DP (Di Sciullo 1990, Massam 1989, Bhatt & Pancheva 2006; cf. also Rizzi 2003) – realized as external argument (Massam 1992 *i.a.*) –, but also the event argument that is crucially required to license or anchor the adverbial (see Rothmayr 2009). It follows that while SCs share several properties with middles –most notably, the stativization of the predicate (see Roberts, 1987, Massam 1992), the occurrence

in generic tenses, and the attribution of a property reading to the subject (see Lakoff, 1977, Hale & Keyser 1988) –, the presence of either accusative (e.g. *te*) or inchoative/passive/impersonal (*se*) morphology is nonetheless nontrivial to the licensing of the adverbial. This not only lends further support to the claim that an internal argument, even a null one, produces aspectually-relevant minimal pairs (states vs. scalar accomplishments); moreover, such aspectual contrasts also reflect the corresponding asymmetry in syntactic composition and morphological marking (in non-equipollent alternations).

Finally, it is interesting to consider the crosslinguistic contrast brought out by examples like (30)a. Significantly, SCs are paraphrased via analytic (be+ING) constructions in English, thus pointing to a more basic variation bearing on the availability of synthetic vs. analytic SCs formed from change-of-state verbs. Both the Spanish *El chocolate engorda* and its English counterpart, *Chocolate is fattening*, can only be combined with the adverbial on an UNDERGOER reading of the DP; that is, on an unaccusative structure in which the chocolate is the one getting fat, which is, again, a possible but odd result. And yet, while both (Spanish-synthetic and English-analytic) constructions are multi-parsable (i.e., they can be equally interpreted either as unaccusative or as SCs), the English version nicely highlights the attributive stative nature underlying Spanish SCs ((30)a vs. the English Individual-Level predication with the *-ing* form serving as subject-oriented predicate).

### 1.3 Monoargumental frames and stativity

Above, we have seen that a strict correlation holds between internal-argument-licensing frames and eventivity, telicity, and change-of-state denotation thus far. If the hypothesis that SCs do not include an internal-argument-introducing head bears out, the fact that SCs produce further aspectual patterns expected from predicates lacking any kind of eventivity whatsoever (i.e., pure statives) is a welcome result.

The prediction that stative unergative forms of verbs otherwise denoting change of state are possible is anticipated for non-English languages in early generative work on argument structure alternations (most notably, McClure 1990 *apud* Levin & Rappaport 1995: 160). Also, recent analyses show that verbs of causation can have a pure eventless (i.e., a Kimian) stative reading (e.g., Rothmayr 2009:43)<sup>8</sup>. Several facts indicate that this is also the case for SCs.

Note that notably, present tense in SCs does not derive habitual or frequentative readings. This is relevant as lack of habitual interpretation is well-known to track differences between aspectual types, what is less-often noted, however, is that this is a distinct property of statives in general (see Rothmayr 2009 *i.a.*). Therefore, constructions like (31)a can only be interpreted as describing an invariable, distinct characteristic of crises in general, as opposed to a reading in which there are distinct time intervals during which a crisis causes a mood change (say, on a daily basis, as informally illustrated in (31)b). Aspectual entailments like these bring out further contrasts with proposed PRO/arb Object alternation instances with these verbs – e.g. *The crisis always worries [people]* (Levin 1993) –, as (31)a indicates.

(31) SC

|                                  |                              |                        |                   |
|----------------------------------|------------------------------|------------------------|-------------------|
| a. <i>La crisis</i>              | <i>preocupa</i> ??           | <i>siempre.</i>        |                   |
| the crisis                       | worries                      | always                 |                   |
| ‘The crisis is always worrying.’ | (#every day)                 |                        | (SC)              |
|                                  | PRO-ARB OBJECT ALTERNATION   |                        | (Levin 1993: 37)  |
| b. <i>La crisis</i>              | <i>preocupa</i> (a la gente) | <i>todos los días.</i> |                   |
| the crisis                       | worries to the people        | every the days         |                   |
| ‘The crisis gets people worried  | ( <sup>ok</sup> every day).’ |                        | (ARB/NULL OBJECT) |

<sup>8</sup> This is relevant, in our case, given the contrast with other apparently similar instances of stative-like causation (see fn 9 below).

(32) shows how either inchoative/passive (*se*) or accusative (*e.g. me*) morphology is again crucial to license modifiers describing the frequency with which an event occurs.

- (32) a. *La tierra se calienta constantemente / frecuentemente.*<sup>9</sup>  
 the earth INCH/PAS heat.3SG constantly frequently  
 ‘Earth is constantly/frequently heating up.’ (every day) (Inchoative)  
 ‘Earth is constantly/frequently heated up.’ (every day) (Passive)
- b. *La crisis me preocupa a cada rato.*  
 the crisis ACC.2SG worry.3SG at each moment  
 ‘The crisis gets me worried all the time.’ (Transitive Causative)

Now consider (33). Even when the impossibility of endpoint modification was anticipated by (25) above, note that if framing (*for-x-time*) occurs at all in SCs, it is not interpreted as an event variable, which is the pattern expected in predicates with eventive properties, including statives with eventive behavior (i.e., D(avisonian) statives). Interestingly, *for-x-time* modification is only possible in SCs as a temporal bound on an individual-level predicate, which, in principle, conforms to a predication of a different ontological type – i.e., an eventless type of stative (i.e., a Kimian stative, Rothmayr 2009, Maienborn 2007 *i.a.*).

- (33) a. *El chocolate engorda (\*en/por un tiempo).*  
 the chocolate fatten.3s (in for a time)  
 ‘Chocolate is fattening for a while.’ (⇒fattening property lasts for x time)
- b. *Los payasos asustan (\*en/por un tiempo).*  
 the clowns frighten.3p (in/for a time)  
 ‘Clowns are frightening for some time.’ (⇒ frightening property lasts for x time)

According to (34), the same observation holds for degree modifiers imputing a measure on the amount of property held by the INITIATOR, as expected in Kimian (pure eventless)<sup>10</sup> states as well (as opposed to a measure on the amount of time during which an event unfolds over time). Importantly, any notion of incremental change – i.e., change in value of this attribute in a particular direction along the scale over runtime of the eventuality, typically seen in both unaccusative and transitive instances of these verbs – is crucially missing from (34).

- (34) SC  
*Esta estufa caliente mucho.* (Spanish)  
*Questa stufa calda troppo.* (Italian)  
 ‘This radiator causes too much heat.’

Consistent evidence comes from the temporal/degree (scalar) interpretation of modifiers like *a little bit* (Rothmayr 2009). Contrast (34) with (35). Also here, with SCs only a stative (nonresultative) reading is possible, describing the degree of heat that the radiator can generate. In causative and inchoative constructions, by contrast, we see the modifier measuring out the duration either of the event or of the internal (result) state, as expected given the eventual and syntactic complexity of eventive variants.

- (35) SC  
 a. *El radiador calienta/seca/quema un poco.*  
 the radiator heats dries burns a little  
 ⇒ ‘The radiator has little heating/drying/burning capacity.’ <sup>ok</sup>Scalar (Stative)  
 !⇒ ‘The radiator heats/dries/burns for a moment.’ \*Runtime (Event)

<sup>9</sup> Even if the analysis of the clitic as the pronominal argument of the  $v_{\text{BECOME}}$  projection, rather than as the spell-out of  $v_{\text{BECOME}}$ , seems possible, I leave the structural account of *se*-cliticization and a more detailed argumentation for future research.

<sup>10</sup> vs. statives with mixed event-like properties (Davidsonian-states, Maienborn 2007, Rothmayr 2009 *i.a.*)

## CAUSATIVE/INCHOATIVE

- b. *El radiador (se/me) calentó/secó un poco.*  
 the radiator I NCH/ACC heated dried a little  
 ⇒ ‘The radiator heated/dried (me) for a while.’ <sup>ok</sup>Runtime (Event)  
 ⇒ ‘The radiator became/got me hot/dry for a moment.’ <sup>ok</sup>Result state

Note, further, that SCs do not combine with modification describing event progression, like *despacio* or *lentamente* ‘slowly’ (36), either. Such restrictions are also expected from eventless types (i.e., in Kimian statives).<sup>11</sup>

- (36) *Estos radiadores \*(se) enfria(ro)n lentamente.*  
 these radiators INCH cool(pst).3p slowly  
 ‘These radiators slowly (got) cool(ed) down’ (inchoative(cliticized))  
 #‘These radiators cool slowly’ (SC (unmarked))

Similar results obtain from tests proposed in more recent works on stativity. For instance, it is argued that while eventive predicates normally license a deontical reading with operators like *must*, Kimian statives characteristically license epistemic readings only. If SCs were eventive or dynamic (and here a clear distinction between dynamicity and eventivity is welcome), we should expect the deontical reading to arise.

<sup>11</sup> In fact, psych verbs like *asustar* ‘frighten’ contribute additional empirical observations related to the nontrivial role of *se*-cliticization. Namely, while the eventive status of cliticless forms of psych verbs like *asustar* is far from being clear – with many researchers analyzing them as states – , cliticized variants denote, as Marín & McNally (2011: 467) show, a punctual inchoative predicate. This means that the adverb *lentamente* is thus incompatible with both SCs and cliticized forms but for very different reasons: with SCs, due to Kimian stativity (noneventivity); with inchoatives, because of punctuality (see also Beavers & Koontz-Garboden 2011).

Similarly, SCs do not combine with manner adverbials, instrumentals, comitatives, and other functionally event-integrated participants either, as (i) shows, thus supporting the complete lack of eventiveness in this stative type of predication. Accordingly, and also in contrast to cliticized forms, SCs: (ii) do not allow anaphoric reference by ‘*this happened...*’; (iii) do not serve as infinitival complements of perception verbs; and they (iv) disallow spatial location – although they can be located in time – , which is precisely the pattern expected from eventless (Kimian) states (Rothmayr 2009).

- (i) *Los payasos asustan \*(mediante máscaras /con amigos).*  
 the clowns frighten through masks with friends  
 ‘The clowns are frightening \*(through masks/with friends).’
- (ii) *Los payasos \*(se) asusta(ro)n; esto sucedió cuando...*  
 the clowns INCH scare(pst).3p; this happened when...  
<sup>ok</sup>‘The clowns got frightened; this happened when...’ (inchoative)  
 \*‘The clowns were frightening; this happened when...’ (SC)
- (iii) *Ví a los payasos asustar\*(se).*  
 saw ACC the clowns frighten INCH  
<sup>ok</sup>‘I saw the clowns getting frightened.’ (Inchoative)  
 \*‘I saw the clowns being frightening.’ (SC)
- (iv) *Los payasos \*(se) asustan en sus casas.*  
 the clowns INCH frighten in their homes  
 ‘The clowns get frightened in their homes.’ (Inchoative)  
 \*‘The clowns are frightening in their homes.’ (SC)

Nonetheless, a stronger contrast comes from the other subtype of alternating verb distinguished by Marín & McNally (among many others), represented by *divertir(se)* ‘amuse’, ‘have fun’. As opposed to the inchoative type seen above, this subtype arguably gives atelic (i.e., nonpunctual) predications. The presence of an eventive component in this stative is clearly seen in that not only the progressive is natural, but, moreover, it licenses imperfective entailments. As expected, the SC counterpart does not behave likewise. Hence, additional evidence obtains that inchoativity (and eventivity) in relevant verbs is not default, and is crucially correlated to cliticization.

- (vi) *Los payasos #(se) estaban divirtiéndose.*  
 the clowns INCH were amusing.  
<sup>ok</sup>‘The clowns were having fun.’ (Inchoative) (⇒ The clowns had fun)  
 #‘The clowns were being amusing.’ (SC).

Nonetheless, examples like (37), featuring an SC in combination with the relevant adverbial, produce an epistemic reading – that is, the type of reading, and hence the relevant pattern, expected from a Kimian stative.

- (37) *El calor debe derretir.*  
 the heat must melt  
 ‘Heat must (=probably) have melting capacity.’ (EPISTEMIC)

In turn, psych verbs – which is a type of verb instantiating PRO/arb Object Alternation in the literature (Levin 1993: 38) – seem to reflect this same pattern, as in (38), extending also to future tense (see also Soto 2008 for observations bearing on the use of future tense for this test in Spanish). These verbs are in fact crucial in accounting for SCs, and will become the topic in the next subsection.

- (38) *Este payaso {debe asustar / asustará}.*  
 This clown must scare.INF scare.FUT  
 ‘This clown must be (=probably is) scary.’ (EPISTEMIC)  
 ! This clown has to/will scare (EPISODIC)

## 2 Further verb classes and further crosslanguage contrasts

### 2.1 Psych verbs

Psych verbs play an important part in the discussion for five reasons.

First, as anticipated, SCs are systematically productive with psych verbs, thus adding, also here, a third alternative to the set of possible argument structure configurations, as in (39).

- (39) TRANSITIVITY ALTERNATION (amuse/frighten-type verb)  
 TRANSITIVE  
 a. *Las tormentas asustan a Katherine.*  
 ‘Storms frighten Katherine.’  
 UNACCUSATIVE  
 b. *Katherine se asusta (fácil).*  
 ‘Katherine frightens easily.’  
 SC  
 c. *Las tormentas asustan.*  
 ‘Storms are frightening.’ (Lit. Storms frighten)

Second, these verbs are directly relevant to the Causative Alternation. Semantically, they describe the “bringing about of a change in psychological or emotional state” (Levin 1993: 191) and hence have been widely analyzed as causative verbs (see Pesetsky 1995). Syntactically, they class as transitive verbs allowing transitivity alternation, with intransitive (unaccusative) pairs receiving a middle interpretation, just like other verbs whose meaning involve causing a change of state (Levin 1993: 10).

- (40) MIDDLE ALTERNATION (Levin 1993: 191)  
 a. *The clown amused the little children.*  
 b. *Little children amuse easily.*

Third, recent research on Spanish suggests that cliticless forms of psych verbs denote *states* (Marin & McNally 2011; for English, see the discussion going back to Pesetsky 1995:29; Grimshaw 1990; Pustejovsky



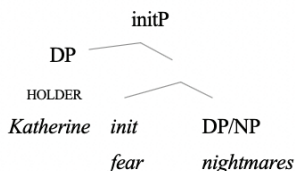
1991 *a.m.o.*), not change-of-state events. This is important since stative behavior – along with clitic *se*-marking – is central to the patterns observed here (more on this below).<sup>12</sup>

Accordingly (fourth), predicates produced by these verbs have been used as examples of Stative Causative constructions in widely-studied languages like English or German (Rothmayr 2009, Arad 1998). Psych verbs have hence been associated with a basic configuration headed by the initiational or causative head ( $v_{init}$ , Ramchand 2008; CAUSE in Rothmayr 2009 and, originally, the zero-causative morphology in Pesetsky 1995): that is, with the sort of verbal head arguably found in verbs producing the Causative Alternation – and, hence, SCs.

Finally, and most important, stative configurations headed by  $V_{INIT}^0$  ( $V_{CAUSE}$  in other proposals, like Rothmayr 2009) have been argued to obtain under the condition that external-argument-introducing head is *not complemented by a process head* (Ramchand 2008, Rothmayr 2009). In our case, this has the advantage of capturing two hallmarks of the monadic structure instantiated by SCs – the complete lack of eventivity on the one hand, and the independent status of  $V_{INIT}^0$ , on the other hand – at the same time. If correct, SCs would therefore also involve a configuration similar to (41) (but see (45) below), with the unique DP in the specifier of the causative head.

(41) *Katherine fears nightmares.*

(Ramchand 2008:64)



One important caveat is nevertheless in order. Recall that the present proposal builds on the fact that a salient characteristic of languages with free/systematic SCs formation is the prominent interpretation of unique arguments as CAUSE/INITIATOR. This same property is the one used by Ramchand to put forward an INIT-headed configuration for the English representatives of this (stative) class in (41).

According to Ramchand, the analysis in (41) follows from the implication that, with this type of verbs, the DP argument in the specifier position of the *causative/initiational* head is the entity *whose properties are the cause or grounds for the stative eventuality to obtain* (Ramchand 2008: 116). It is important, however, to note that a CAUSE(R) interpretation of the subject is not the reading proposed in standard analysis for the subclass of psych verbs exemplified by *fear*. Conversely, the subject of the *fear*-type of psych verb is commonly analyzed as the entity affected by the (change of) psych state (the EXPERIENCER). It is the second argument of verbs like *fear* (e.g. *nightmares*, in the example above) that is naturally interpreted as a *trigger* (in Arad's terminology) or CAUSE (cf. also Rothmayr 2009) instead. This distinction is, precisely, what motivates a well-known (sub)division between Subject-Experiencer (*fear-type*) vs. Object-Experiencer (*frighten-type*) psych verbs (Grimshaw 1990, Croft 1991, Pesetsky 1995, also Arad 1998, Reinhart 2002 *a.m.o.*).<sup>13</sup>

(42) STATIVE-CAUSATIVE CONSTRUCTIONS

(English)

SUBJECT-EXPERIENCER VERBS

a. *Katherine fears nightmares.*

(Ramchand 2008)

OBJECT-EXPERIENCER VERBS

b. *John's haircut annoys Nina.*

(Arad 1998: 182)

<sup>12</sup> See fn. 11 on (*se*-)cliticization and its relevance to eventive behavior.

<sup>13</sup> This subdivision (concerning the thematic role of the subject) is not to be identified (and does not correlate) to the one introduced above, concerning event class (i.e., between punctual (*scare-type*) and atelic (*amuse-type*) inchoatives, see fn. 11).

In fact, the proposal of zero-causative morphology as the source of psych verbs, which goes back to Pesetsky (1995: 21), crucially focuses on ‘non-unaccusative’ (i.e., Object-Experiencer) verbs; while the type used by Ramchand in her example (*fear*) represents, instead, the subtype generally explained as a consequence of *absence* of the external-argument introducing head seen in causative structures (see also Varchetta 2012 *i.a.*). Quite crucially, it is precisely this latter type which fails to yield productive stative causatives in Spanish<sup>14</sup> (see (43) below), which seems natural, since the subject cannot be interpreted as possible cause here, but only as experiencer/undergoer. By contrast, it is the type proposed by Pesetsky (*a.m.o.*; i.e., the *frighten/amuse*-type) that is systematically productive with – and better describes – SCs, as (36)-(39) above showed.

- (43) SC (Spanish)
- SUBJECT-EXPERIENCER VERBS
- a. \**Katherine teme /disfruta /odia.*  
 Katherine fears enjoys hates  
 (Intended) ‘Katherine is fearsome/enjoyable/hateful.’  
 (Katherine causes fear/joy/hate)
- OBJECT-EXPERIENCER VERBS
- b. *Katherine/El corte de pelo de Al asusta/irrita/divierte.*  
 Katherine/the cut of hair of Al scares/irritates/amuses  
 ‘Katherine/John’s haircut is frightening/irritating/amusing.’

(42)-(43) also substantiate an interesting, underdiscussed contrast, in line with the present argumentation.

On the one hand, English (42) and Spanish (43) stative-causative structures are somehow similar in that the stative reading of these verbs, as Arad among many others point out, does *not* include a change of state in an object (Arad 1998:182, also Levin & Rappaport 1995:169 *i.a.*). On the other hand, however, there is a contrast in argument structure. In English, the construction characteristically involves *two* arguments, with the corresponding participants crucially involved in a *conditional* relation. In fact, it is often noted (Arad 1998, Rothmayr 2009) that, in the stative causative predication delivered by psych verbs of this sort in English and in German, the state holds *insofar as* the trigger is exposed to the Experiencer (43). Therefore, the caused state *ceases to exist* outside this relation (Rothmayr 2009:54). As (44) shows, this condition does not hold in Spanish (and, presumably, in languages systematically deriving SCs). A natural explanation comes from the premise that systematic availability of a genuine monoargumental structure for psych verbs in Spanish – i.e., the fact that no Experiencer figures in the semantic (nor syntactic) representation of Spanish SCs – correctly excludes SC-forming languages from such a relational condition (see Varchetta 2012 *i.a.*).<sup>15</sup>

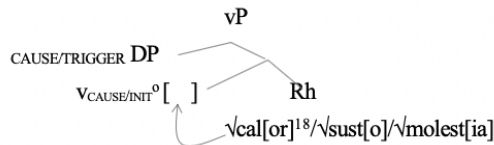
- (44) a. *John’s haircut annoys \*(Nina).* (English)
- b. *El corte de pelo de Al molesta/irrita (a Nina).* (Spanish)  
 the cut of hair of Al annoys irritates to Nina  
 ‘John’s haircut annoys/irritates Nina.’ (dyadic causative)  
 ‘John’s haircut is annoying/irritating.’ (SC)

<sup>14</sup> As for the *holder* interpretation of the subject, advanced by Ramchand as a result of the *Init*-headed (processless) configuration, it is important to note that the notion of *holder* is usually considered to extend to stative predications quite generally, inasmuch as it is originally conceived in terms of holder of *property* or *state*. In this sense, the notion could apply to SCs just as well.

<sup>15</sup> Quite crucially, Varchetta (2012) *i.a.* already argue that Obj-Exp verbs should not select an arbitrary object *pro*, and that external-argument-only variants should hence be found with these verbs.

In principle, the configuration in (45) (a root-incorporation (nonderivational) variant of (41)) should reflect these points,<sup>16</sup> as well as the important fact that in SCs the DP argument is naturally interpreted as CAUSE of the eventuality, independent of further composition with the internal-argument-introducing head (i.e., no process complementation, in line with Rothmayr's 2009 account of German and English stative causatives). Importantly, the analysis extends to different verbs classes showing the alternation at stake here, such as change-of-state verbs, causative nonalternating verbs like *kill* (*El stress mata* 'Stress kills'), and psych verbs. For all these cases, compatible monoargumental frames are available in most Romance languages, reflecting stative causation and independent interpretation of the DP as *cause*, accordingly.<sup>17</sup>

(45) Proposed L-syntax for SCs



*El sol caliente/Los payasos asustan/El corte de pelo molesta.*

'The sun has heating properties/Clowns are frightening/The haircut is bothering.'

There is another major advantage of the proposed analysis. Note that the stativity of psych verbs, along with the stativity of SC variants, is unexpected under a typology where verbs entering the Causative Alternation are defined as bearing *proc* as a preexistent lexically-defined component (see Ramchand 2008 *i.a.*), or where the *initiation/kausative* head is defined as *eventive* (e.g., Folli & Harley 2005). However, this can be correctly predicted by the possibility of independent compounding with a null  $v_{INIT}$  (or  $v_{CAUSE}^0$  in a more standard terminology; see Pesetsky 1995 among others for the original claim on zero-causative morphology giving nonresultative variants, but see also the discussion in Section 4).<sup>19</sup>

SCs give additional evidence in support of these claims, not only because the construction clearly lacks process denotation, but, more importantly, because the unique DP does not bear a composite role either, which would be the remaining (potential) explanation building on constant composition with a process ( $v_{BECOME}$ ) component. In fact, reflexive interpretation of *se* in a monoargumental construction like (39)b is quite unnatural, and, in addition, stative causation is not subject to a relational condition mutually implicating

<sup>16</sup> I will not discuss here what the correct analysis for the opposite (i.e., the nonproductive) type is, especially considering the wide range of proposals offered in mainstream (l)-syntactic approaches (starting from Hale & Keyser's 2002 *locatum-verb* analysis). For similar reasons, I presently do not intend to take any position with respect to the debate on the possible identity or relationship between the causative head (and vP more generally) and VoiceP (see Harley 2017 for overview of the discussion).

<sup>17</sup> The basic idea is that follows from a basic constructional(ist) account is that there would only be roots at the beginning of the derivation. First, the root has to find a way to become eventive and license an internal argument. Arguably, this is done by composition with the internal-argument-licensing head associated to the BECOME prime in the literature (recall (2)). Whether or not this structure is embedded under the defective monadic verbal configuration would define if the resulting representation is a dyadic causative or a monadic unaccusative configuration (respectively). Alternatively, the root could combine with the defective monadic structure (i.e., the upstairs verbal head found in transitive causatives), as in (45), thus producing a verb with all the properties expected from a structure, also headed by the causative head, but in which the internal-argument-licensing head is crucially absent; notably, lack of eventivity, impossibility to license null/arb or cognate or hyponymous objects (see Section 4), and absence of a result state.

<sup>18</sup> A non-derivational approach avoids an analytical problem here (e.g. assuming that *calentar* incorporates either a N or Adj base).

<sup>19</sup> In principle, free composition with a causative head could further explain SC formation with verbs originally not entering the causative alternation (and, more importantly, not bearing causative denotation) like *resbalar* 'slip'. Consider, for instance, systematic formation of constructions like (i).

(i) *Este escalón resbala*  
 this step slips  
 'This step is slippery' (causes slip(s))

a second participant in Spanish, as just argued. In this sense, the availability of root-incorporation in the proposed structure, as an alternative to the canonical (monadic) construction headed by the internal-argument-licensing head, captures the particular relevance of *se*-cliticization to the semantic and syntactic behavior of these verbs. It is in fact interesting to note how composition with *se* marks the contrast between a *stative*, unergative frame with Subject-Causer interpretation (i.e., the default cliticless variant), and an *inchoative* configuration with Subject-Experiencer-like (or *Subject-Undergoer*, depending on the analysis) distribution (cf. *Juan aburre* ‘Juan is boring [causes boredom]’ vs. *Juan se aburre* ‘Juan gets bored’).<sup>20</sup>

Below, further sets of verbs with (in)transitivity alternation provide additional support for these conclusions, offering interesting observations on Spanish SC and bringing out a deeper crosslanguage contrast with languages lacking free/systematic SC formation.

## 2.2 Verbs with PRO-*arb* Object Alternation (Characteristic Property of Agent Alternation)

There is a class of verbs called ‘advise’ verbs. This class – represented by verbs like *admonish*, *advise*, *caution*, *counsel*, *instruct*, *warn* – prototypically shows the sort of (in)transitivity alternation commonly referred to as PRO-*arb* Object Alternation (recall Section 2.1 above). According to Levin (1993: 38), a salient characteristic of these verbs is that they alternate between a transitive frame and an ‘intransitive’ construction. In this ‘intransitive’ variant, *an unexpressed object* receives an *arbitrary/null object interpretation*, comparable in meaning to the transitive constructions with “one”, “us”, or “people”.

### (46) PRO-ARB OBJECT ALTERNATION

- a. *The sign warned us against skating on the pond.* (Levin 1993: 38 (68))  
 b. *The sign warned against skating on the pond.*

In Spanish, SCs are also possible with this type of verb, provided that they allow a causative (re) interpretation. Importantly, the alternative produces the expected contrasts in aspectual composition between original monadic structures (SCs) and null/*arb* object ‘intransitive’ variants. For instance, we find aspectual restrictions to SC variants consistent with the eventless nature (and consequent incompatibility with process) observed thus far. Namely, while PRO/*arb* object constructions paralleling (46)b are perfectly natural in Spanish (see (47)a), its SC counterpart (47)b is predictably restricted to present tense and shows the oddity in perfective tenses seen above (e.g., (26) above).

### (47) PRO-ARB

(Spanish)

- a. *El cartel<sup>#</sup> (nos) alertó acerca de patinar en el lago.*  
 The sign us alerted about of skating in the lake  
 ‘The sign warned (us) about skating on the pond.’  
 SC
- b. *El cartel {#alertó/<sup>ok</sup>alerta}.*  
 The sign alerted alerts  
 ‘The sign is alerting.’ (The sign causes alert)

Levin’s typology includes other relevant cases of intransitive alternation also producing compelling contrasts. For instance, there is also the class of verbs undergoing a ‘Characteristic Property of Agent’ Alternation. In principle, a hallmark of verbs like *bite*, *butt*, *itch*, *kick*, *pinch*, *prick*, *scratch*, *sting* is the introduction of an entailment apparently reflecting the same entailment given by Spanish SCs; that is, the description of an inherent (individual-level) property attributed to the external argument.

### (48) CHARACTERISTIC PROPERTY OF AGENT ALTERNATION

(Levin 1993: 39 (72))

<sup>20</sup> See fn. 11.

- a. *That dog bites people.*  
 b. *That dog bites.*

Here, however, it is nevertheless crucial to note that verbs producing this alternation are defined by expressing that the subject – which is not a probable CAUSE, but an AGENT – typically shows a propensity for an *action* named by the verb (Levin 1993). These are important remarks, first, because agentive/active denotation in (48) contrasts with the description of an entity which bears a *property* (i.e., a pure state) that is causally related to a noninstantiated change of state (or, rather, to the potential for it; i.e., the *dispositional causation* argued for above) in SCs. Therefore, the basic denotation produced by Property of Agent Alternations does not correspond to the noneventive, nonepisodic type of predication that characterizes SCs, nor it is amenable to SCs with regard of the semantic (agentive) interpretation of the subject (vs. the probable cause interpretation of the subject in SCs). Further, (49)a shows that Levin’s ‘intransitive’ variants are highly compatible with modifiers related to the frequency (*always*), time (*suddenly*), iterativity (*repeatedly*) and manner (*strongly*) in which an event takes place. In consequence, eventive behavior is consistent here with the expression of an *action* that figures in Levin’s characterization. In fact, (49)a delivers the habitual entailment in the present tense – i.e., another standard test for eventive types. Needless to say, SCs do not naturally derive this sort of interpretation and are incompatible with adverbials relevant to the test, as shown above (recall (31)).

- (49) PRO/Arb object (Property of Agent) Alternation (Spanish)  
 a. *El perro muerde (siempre/repentinamente/frecuentemente/fuertemente).*  
 ‘The dog bites (always/repeatedly/frequently/strongly).’  
 SC  
 b. \**El perro muerde.*  
 (intended) ‘The dog causes bite(s).’

The necessary interpretation of the external argument as AGENT but not as probable CAUSE becomes empirically and theoretically important as well. Empirically, because it captures the lack of productivity of SCs with Property-of-Agent alternating verbs like *morder* ‘bite’, as (49)b indicates; while similar verbs that crucially allow causative (re)interpretation seem to produce SC-like structures quite freely in Spanish, to a consequently distinct interpretation as well (nonagentive, noneventive predication; cf. *La lana pica*. ‘The wool itches’(=‘The wool causes itchiness’)).<sup>21</sup> Theoretically, an agent/cause opposition allows for a more refined analysis, outlined next.

### 3 Remaining issues

To finish, I want to briefly discuss the possibility to replace Ramchand’s causative ( $v_{Init}^0$ ) head in the analysis with a specific flavor of external-argument-licensing head proposed elsewhere in the literature ( $v_{CAUSE}^0$ , Harley 2002, but see Harley 2017 for overview on the general discussion). In opposition to other external-argument licensing heads put forward in the literature (e.g.,  $v_{DO}^0$ ),  $v_{CAUSE}$  would provide an explanation for a wide constellation of facts concerning the Romance Causative Alternation; while a consequent ( $v_{CAUSE}/v_{DO}^0$ ) opposition could capture relevant contrasts with the alternative (Unexpressed Object) transitivity

<sup>21</sup> Another subclass of *Property-of* alternations, like the Characteristic Property of Instrument Alternation (Levin 1993), shows similar patterns. Although these constructions can ultimately be reinterpreted as causatives for some native speakers, as (i)b suggests, also here, eventive behavior – e.g. adverbial modification, perfective inflection – stands in opposite distribution to SC interpretation.

- (i) a. *Este cuchillo corta/cortó* ∅ (*rápido/abrupto/parejo*). PROP. OF INSTRUMENT ALTERNATION  
 ‘This knife cuts/cut [things] in a (quick/sudden/even) manner.’  
 b. *Este cuchillo corta/#cortó* (\**rápido/\*abrupto/\*parejo*). SC  
 ‘This knife causes/#caused cuts (\*quickly/abruptly/evenly).’

alternations mentioned above.

One pressing analytical problem here is that an analysis building on a single external-argument-licensing head – that is, on a unitary association of external arguments with  $V_{\text{INIT}}$  – is insensitive to major (alternating) verb classes whose external argument does not strictly bear initiational semantics (either in the sense of a causer, or else as a holder of an initiational/causational property in statives). Further, the schema is insensitive to a nontrivial contrast between unergative structures like SCs and better-known unergative structures (e.g. prototypical unergatives like *run*), insofar as in the latter the external argument cannot be interpreted as INITIATOR-CAUSE(R), but normally take an AGENT reading instead. Recall, for instance, the lack of SC productivity with verbs with property of AGENT alternation like *morder* ‘bite’ ((48) above). Even if the CAUSE/AGENT distinction could be ultimately acknowledged and subsumed into a more labile or unified conception of initiators (e.g. McIntyre 2004 on atransitive structures, but also in Ramchand 2008), we would still need to account for the fact that two significantly different unergative structures are possible; and that, moreover, in our case, the opposition parallels an important distributional pattern crosscutting two sufficiently different types of (a)transitivity alternations.

The specific empirical question that arises here is why there is distributional pattern between (a) two external-argument-only configurations with systematically opposite semantic and syntactic properties, and (b) two structurally different types of alternation, further correlated to two types of external-argument-introducing heads considered in the literature. I refer to the identification of an eventive light verb imposing AGENT reading on the subject – generally associated to or notated as  $v_{\text{DO}}$  in typologies like the one put forward by Folli & Harley (2005), (2007) (but cf. Mateu 2017, Berro 2012, Rothmayr 2009, *i.a.*) – as opposed to the null light external-argument-introducing head generally associated with causative structures in the literature (cf. McIntyre 2005, Folly & Harley 2005, but cf. Harley 2017 for discussion; see Rothmayr 2009 for an account crucially combining the possibility of a processless causative-headed configuration with a  $v_{\text{CAUSE}}/v_{\text{DO}}$  alternating system). Even if an alternative eventive external-argument-licensing  $v^{\circ}$  is not a direct concern for us in this paper, a difference such as the one established between  $v_{\text{CAUSE}}$  (if amenable to  $v_{\text{INIT}}$ ) and  $v_{\text{DO}}$  may be useful to explain important distinctions observed above.<sup>22</sup>

In the case of SCs formed on psych verbs, the question is why the external argument cannot be interpreted as agentive/volitional, and/or the predicate as episodic, in cases in which both the verb and the DP *per se* generally allow for this possibility. For any native speaker, (50) illustrates the fact that an episodic (an event) interpretation runs parallel to an agentive/volitional interpretation of the DP, thus blocking SC (external-argument-as-possible-cause) interpretation accordingly.<sup>23</sup>

(50) SC

a. *Este payaso asusta.*

‘This clown is frightening’ (causes fright)

PRO/ARB OBJECT ALTERNATION

b. *Este payaso asusta (a la gente) (de modo perverso/a posta).*

‘This clown scares [away] (people) (in a wicked manner)’

<sup>22</sup> Even if we were willing to see the contrast between causative/agentive head as an interpretive alternative on a single external-argument-introducing head, we would still need to account for the fact that such a visible asymmetry in productivity arises with the causative variant but not with the agentive one. That is, why is it that Spanish, Italian, Catalan, Portuguese (and many nonRomance languages like Greek, see Mangialavori Rasia 2018) systematically produce unergative causatives, in contrast to, namely, English and German; and yet, no such difference in productivity arises with an agentive-interpreted head (e.g. in standard unergatives).

<sup>23</sup> Note in fact the contrast in entailment, suggesting volitionality in (b) but not in (a):

|     |                                       |                                 |                               |
|-----|---------------------------------------|---------------------------------|-------------------------------|
| (i) | a. <i>Esta estufa no calienta.</i>    |                                 | SC                            |
|     | ‘This radiator doesn’t [cause] heat.’ | = It is unable to cause heat.   |                               |
|     | b. <i>Este perro no muerde.</i>       |                                 | Property of Agent Alternation |
|     | ‘This dog doesn’t bite.’              | ≠ It is unable to bite [people] |                               |

In principle, we could account for what Levin claims to be an unergative variant of *bite* (*The dog bites*) under the idea that any eventive component is introduced by *proc*.<sup>24</sup> However, if the contrast is explained by the presence of a *proc* projection in the eventive type of unergative (cf. Ramchand 2008, but see Ramchand & Svenonius 2014 for an explicit formulation of *init* and *proc* as *v* heads), different problems arise. Just to give one example, the resulting configuration (i.e., (51)a) would be identical to the one crucially producing cause(r) interpretation of the subject both in this and in standard constructionist accounts (see Hale & Keyser 2002, Zubizarreta & Oh 2007 *i.a.*). If we instead assume that the difference stems from a selectional contrast – e.g., that standard (agentive/eventive) and Property of Agent unergatives are the structural result of root incorporation from the internal argument position,<sup>25</sup> while  $v_{\text{CAUSE}}$ -interpreted configurations result from combining the external-argument-introducing head with a small clause (Harley & Folli 2005) or VP (McIntyre 2005) complement –, then SCs, which bear no such a predicative relation, accordingly disallow secondary predication on a theme as shown above (2.1), embed no further verbal projection, and crucially lack a *proc* component, would probably go without an explanation.

|                      |                                |                           |
|----------------------|--------------------------------|---------------------------|
| (51) a. Intransitive | INITIATOR, UNDERGOER           | <i>run</i>                |
| b. Intransitive      | INITIATOR, UNDERGOER, RESULTEE | <i>arrive, jump</i>       |
| c. Intransitive      | UNDERGOER                      | <i>melt, roll, freeze</i> |

(52) Lexical entry for run: [*init, proc*]. Ramchand (2008)

A head like  $v_{\text{DO}}$  would provide a natural source for agentive predications with volitional and eventive entailments, which are properties crucially missing in SCs (stative, nonvolitional, nonagentive predications, even with animated subjects like most instances of object-experiencer psych verbs). Conversely,  $v_{\text{CAUSE}}$ -formation (in SCs) would only require (a) that the subject be interpreted as probable cause (which is a semantic condition of the causative head anticipated by Folli & Harley 2005); and (b) that the outer head be not necessarily defined as eventive (a key introduction to the analysis developed in, namely, Ramchand 2008 and Rothmayr 2009, *i.a.*). Among other things, a  $v_{\text{DO}}$ -headed configuration retains the verbal flavor originally advanced by Hale & Keyser as the base for standardly-analyzed unergative verbs, contrasting with the  $v_{\text{CAUSE/INIT}}$  flavor that figures in the analysis of causative structures (Rothmayr 2009, McIntyre 2005 for overview). By contrast, direct combination with a causative verbalizer, probably reflecting the nonresultative nature of Pesetsky's (1995) zero-causative morphology, would serve as a natural source

<sup>24</sup> Rothmayr (2009) claims that creation unergatives result from  $v_{\text{DO}}+v_{\text{CAUSE}}$ . The asymmetry would probably capture also the contrast between SCs and 'agentive causatives' (e.g. *assassinate*, Koontz-Garboden 2009, but see Wunderlich 2003), giving a predication with episodic denotation and an animated subject with control over the event (setting aside caveats on how [ $v_{\text{DO}}$  [ $v_{\text{CAUSE}}$ ]] correlates to event composition, under the Fodorean discussion on *kill*, e.g. Harley 2012).

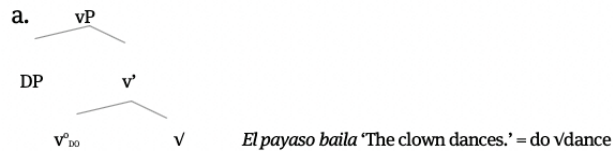
<sup>25</sup> In the original account, unergative verbs are seen as a result of the incorporation of a (nominal) root originated in an argumental (internal object) position into  $v_{\text{DO}}$  (see Folli, Harley and Karimi 2008: 1367 for a contrast between this structure and causative-alternating ones and their overview of Hale & Keyser's model, but see also Rothmayr 2009). The underlying transitive structure is visible in that these verbs typically allow cognate and hyponymous objects – arguably since the internal argument position becomes available after incorporation. Importantly, neither cognate nor hyponymous objects are possible with SCs.

- |      |  |                     |
|------|--|---------------------|
| (i)  | <i>Dormir</i> [ <i>una siesta/un sueño profundo</i> ]. | Standard unergative |
|      | 'To sleep [a nap/a deep sleep].'                       |                     |
| (ii) | El humo daña *[daños profundos].                       | SC                  |
|      | 'Smoke damages.' (=Smoke causes damage)                |                     |

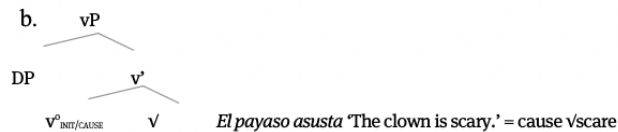
Hence, it could be hypothesized that in SCs the incorporated root is originated in a different sort of projection. Nonetheless, the possibility that an independent external-argument-introducing head is simply complemented by non-clausal Rh projection is important in our view because argues against the generalization that the causative heads are confined to Small-Clause complementation (but see also Rothmayr 2009). Configurationally, Ramchand's structure seems closer to the standard schema with unergatives originating from sister-to-*v* root-incorporation (Hale & Keyser 2002 *i.a.*).

for monoargumental causatives (SCs).<sup>26</sup> Here, as the root in SCs would also raise to incorporate into the light verb by the usual head-movement mechanism, the derivation originally proposed by Hale & Keyser as the source of unergative configurations is basically preserved. Furthermore, the proposed distinction (determined by root-incorporation into either the causative or the agentive head) could also correctly capture the fact that SCs license causal semantics independent of further (e.g.,  $V_2$ ) embedding (Merge with a further (unaccusative) V in Hale & Keyser).

(53) Standard (eventive) unergative verb formation (Hale & Keyser 2002 *i.a.*).



PROPOSED L-SYNTAX FOR VERBS WITH CAUSATIVE ALTERNATION (PRODUCTIVE SC)



Nonetheless, different facts surrounding SC formation suggest that the adoption of a light verb ontology such as Harley & Folli's or McIntyre's – i.e., identifying  $v_{INIT}$  with their  $v_{CAUSE}$  – would require some adjustments. For instance, while the definition of the causativizing or initiational head ( $v_{CAUSE}$ ) as eventive may seem unmotivated and crucially challenged, namely, by data like the one at the table here;<sup>27</sup> the syntactic restrictions claimed (the stipulation that this head requires Small Clause complements in Folli & Harley 2003: 104, and VP complements in McIntyre 2005) may turn out to be too strong when considered in light of a wider empirical frame.<sup>28</sup> By contrast, our results suggest that a noneventive characterization of the causative head (Ramchand 2008, Rothmayr 2009 but see also Berro 2015 *i.a.*) allowing other types of (e.g. rhematic) complementation is more adequate and makes the correct predictions, from which the crosscut not only in thematic interpretation of the subject, but also in event(al) composition simply fall out in a transparent and straightforward manner.

In this sense, the theoretically-relevant question, which I leave open here, is whether the account pursued above could preserve the stative definition of the initiational head and, at the same time, allow the alternation with an eventive external-argument-introducing head similar to  $v_{DO}$  in a minimally-enriched ontology.

<sup>26</sup> If direct root-incorporation into the causative head exists, as suggested by the data above, it must be the case that important crosslanguage contrasts obtain from its availability. Presumably, languages in which root-incorporation into the defective v head is fully productive (systematic SC-forming languages), stand in complementary distribution to languages in which stative causation is essentially dyadic and SC-like constructions are generally achieved analytically (e.g. *be* + present participle).

<sup>27</sup> Note that in Folli & Harley (2005, 2007) the definition of  $v_{CAUSE}$  as eventive rests on the adoption of a (nonstandard) single-layered causative (headed by  $v_{CAUSE}$ , with inchoative variants headed by  $V_{BECAUSE}$ , thus presenting the causative-inchoative alternation as the result of verbalizer replacement). Nonetheless, a significant body of data, of which SCs are part, rather suggests that, at least in Romance, the traditional double-layered structure is more convenient for several reasons, starting from important asymmetries in the scope of adverbials, quantifiers and negative operators (*pace* Marantz 2008).

<sup>28</sup> By relaxing the requirement that  $v_{CAUSE}$  be complemented by a Small Clause, we could capture not only a larger body of data, but also the fact that SCs lack the attributive relation shown by transitive and unaccusative variants. If this is the case, and provided that our analysis retains the double-layered structure for transitive causatives, the Small Clause complement would correlate to presence of  $v_{BECOME}$  or *vproc*.



## 4 Conclusions

Here, a standard constructional account preserving the structural correspondence between event structure composition and argument structure realization offers a natural solution in which important differences, previously unnoticed in the literature, follow from the preexistent alternatives allowed by the standardly-assumed combinatorial system; a crucial aspect here being the independence of all verbal heads involved in the Causative Alternation – notably, the fact that the external-argument-introducing head does not necessarily compose with the internal-argument-licensing head. SCs provide evidence in this respect, at the same time that they show consistent differences with ‘intransitive’ alternations involving nonovert arguments.

The proposed configuration, headed by the causative element (and no process/ $V^0$ -headed complementation), correctly captures the productivity patterns of SCs in various verbs classes and alternations. The proposal aims to eliminate superfluous or excessive specifications in the lexical roots or lexical entry of the verb, at the same time that it avoids an explanation building on partial projection of lexically-coded information. Patterns such as those examined here strongly indicate that the internal argument would not be a default, constant, or *stable* argument in the Causative Alternation and hence, it – along with the eventive component associated to internal-argument-licensing structure – would not necessarily be part of a fixed structure associated with the root. If correct, this means that the unaccusativity of a large class of verbs showing argument structure alternations – most notably, change-of-state and psychological verbs – would not be default, but syntactically constructed, at least in Romance languages like Spanish.

In addition, the facts I present here contribute relevant empirical arguments to argue that the causative component in the Causative Alternation is correctly analyzed as noneventive (or, at least, as event(u)ally-unmarked in languages like Spanish).

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