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Deriving individual-level and stage-level psych verbs in Spanish

Abstract: Aspectual notions, although displayed most clearly in verbs, manifest across categories, with notions like (un)boundedness manifesting themselves in several instantiations which are sometimes specific of individual grammatical categories. This paper contributes to the ongoing debate on how aspectual notions emerge in different categorial domains by an analysis of subject-experiencer and object-experiencer psychological predicates (SEPVs and OEPVs, respectively). We review the evidence that SEPVs denote individual level (IL) states, and provide new facts – taken from the behaviour of participles – in favour of that diagnostic; we also argue that OEPVs should be classified as states of the stage level (SL) class. We argue that OEPVs denote states with an onset, which corresponds to the denotation of SLs. SEPVs simply denote states without boundaries, which we argue to correspond to IL predicates. Finally, we show how these two denotations follow without further assumptions from the structures proposed for SEPVs and OEPVs in previous work, specially Pesetsky (1995), making it unnecessary to postulate that the distinction is of lexical nature.

Keywords: Psychological predicates, Individual Level, Stage Level, Lexical categories, Morphological derivation, Participles

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1 Aspect, structure and the nature of psychological predicates

In the last years, it has become clear that the aspectual properties of predicates cross-cut categorial boundaries, and are defined through a shared vocabulary of primitives – like boundedness – which is not exclusive to verbs. Since the seminal work of Bach (1976) and Mourelatos (1978), a number of authors have pointed out that adjectives, nouns, verbs and prepositions are sensitive to the same kind of aspectual distinctions (Jackendoff 1991, Hale and Keyser 2002, Mateu 2002,

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Rothstein 2004, Borer 2005), with notions like (noun) (un)countability relating closely to (verbal) (a)telicity or the (adjectival) (un)closedness of a scale. The idea that aspectual notions are not inherent to a specific grammatical category suggests that aspect is built through the interaction of primitive notions. A system where aspect is part of the lexical entry of individual categories, or a set of features depending on specific categories, would not straightforwardly make the prediction that aspect is found across categories. The obvious alternative is to associate aspect to the syntactic configurations that heads produce when they combine with each other or, along the same lines, to interpretative rules that transform those structures into semantic notions at the Conceptual-Intentional Interface (as done in Ramchand 2008 or MacDonald 2008). This last option is the one that we will argue for in this paper: the structural configuration of a lexical category – in our case, verbs – defines crucial aspectual properties and allows us to derive, rather than postulate, the aspectual behaviour of verbs whose argument structure is known. Inherent to this enterprise are the cases where aspectual properties are preserved across categories, as it is observed for psychological predicates.

The empirical core of this paper is the generalization that subject-experiencer psychological verbs (henceforth SEPV) (1) behave as Individual-Level predicates (IL, Carlson 1977), while object-experiencer psychological verbs (OEPV) (2) behave as Stage-Level predicates (SL).

(1) *amar* 'love'; *adorar* 'adore'; *admirar* 'admire'; *envidiar* 'envy'; *temer* 'fear'; *odiar* 'hate'; *detestar* 'detest'; *lamentar* 'regret'; *sentir* 'feel'; *esperar* 'hope'; *aborrecer* 'loathe'; *disfrutar* 'enjoy'; *gozar* 'take delight'; *sufrir* 'suffer'; *ansiar* 'long for'; *ambicionar* 'have an ambition'; *tolerar* 'bear'; *padecer* 'suffer'; *arrostrar* 'face up to'; *sobrellevar* 'bear'; *resistir* 'resist'; *anhelar* 'long for'; *venerar* 'worship'; *estimar* 'appreciate'; *codiciar* 'covet'; *desear* 'wish'; *querer* 'want'; *confiar* 'trust'; *desconfiar* 'mistrust'; *recelar* 'mistrust'; *abominar* 'abhor'; *apreciar* 'appreciate'; *despreciar* 'scorn'; *execrar* 'scorn'; *deplorar* 'regret deeply'.

(2) *aliviar* 'soothe'; *asombrar* 'amaze'; *asustar* 'frighten'; *atemorizar* 'frighten'; *aterrorizar* 'frighten'; *contrariar* 'upset'; *(des)motivar* '(de)motivate'; *entretener* 'entertain'; *espantar* 'scare'; *excitar* 'agitate'; *fastidiar* 'bother'; *molestar* 'bother'; *perturbar* 'unsettle'; *sorprender* 'surprise'; *aburrir* 'bore'; *acongojar* 'distress'; *afligir* 'afflict'; *angustiar* 'distress'; *anonadar* 'bewilder'; *apasionar* 'fascinate'; *apenar* 'sadden'; *apesadumbrar* 'sadden'; *cabrear* 'piss off'; *compungir* 'to cause remorse'; *conmocionar* 'stun'; *consternar* 'dismay'; *deprimir* 'depress'; *desesperar* 'exasperate'; *disgustar* 'upset'; *enfadar* 'upset'; *enfu-*

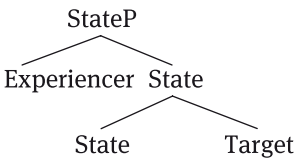
recer 'to infuriate'; *enojar* 'upset'; *enorgullecer* 'fill with pride'; *entristecer* 'sadden'; *entusiasmar* 'fill with enthusiasm'; *fascinar* 'fascinate'; *(des)ilusionar* '(dis)illusion'; *indignar* 'anger'; *interesar* 'interest'; *mosquear* 'piss off'; *obnubilar* 'daze'; *obsesionar* 'obsess'; *ofuscar* 'dazzle'; *preocupar* 'worry'.

The first part of the generalization has already been proposed in the literature (most notably in Kratzer 1995); the second part of the generalization, to the best of our knowledge, is new.[1] This strong claim will let us dig deeper into the nature of the IL/SL contrast in grammar, and more specifically, into how the two kinds of states denoted by these predicates should be differentiated. We will argue that IL predicates are pure states, without boundaries, while SL predicates include – or at least presuppose – a (left) boundary (Piñón, 1997).

Finally, we will show that this distinction between SEPVs and OEPVs does not need to be postulated lexically: it can derive from common assumptions and previous proposals about the distinct syntactic structure of these two classes of psychological predicates.

The core claims of this paper can be summarized as follows. First, we will argue that there is a core involved in all formal psych verbs (3a): a mental state which relates the experiencer with the entity towards which this state is targeted. This simply corresponds to the structure of a SEPV. OEPVs are built over this core by adding an additional layer codifying causation, but without any dynamic part involved in the event structure – that is, there is no process – (3b). Several predictions diagnosing a higher structural complexity for OEPVs are shown to support this proposal.

(3) a.



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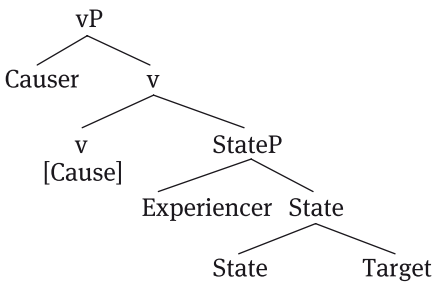


This aspect of our analysis owes a great deal to Pesetsky (1995), where the original claim that OEPVs contain SEPVs is made. But beyond this, we will show

1 As far as we know, Pylkkänen (2000) is the only work proposing that certain OEPVs denote SL states. In our case, we extent this account to the whole class of OEPVs.

that (3a) maps into an aspectual structure characteristic of IL predicates, while (3b) maps into a SL interpretation. Thus, SEPVs, by their mere syntactic configuration, are predicted to behave as ILs, and OEPVs are predicted to behave as SLs. Section 2 is devoted to showing that SEPVs indeed behave as ILs, and that OEPVs, while being stative, act as SLs. Section 3 shows further support for this distinction taking into account the behaviour of their participles. Section 4 shows the technical interpretation: in Section 4.1 we argue that one way of defining a situation as SL is by defining an onset of a state; Section 4.2 discusses how the different configurations in (3) are mapped, respectively, into IL and SL configurations. Section 5 suggests some further lines of research and evaluates the conclusions.

1.1 Psychological verbs: classes and aspectual classification

There is a very abundant literature dealing with the argument and event structure of psychological predicates. Since Belletti and Rizzi (1988) several classes are typically differentiated attending to argument structure and aspect: (i) subject-experiencer psychological verbs (SEPVs), such as *love* or *hate*; (ii) experiencer-object psychological verbs (OEPVs), such as *worry* or *upset*. This second class is further divided according to the morphological case that the experiencer carries: accusative or dative. While many verbs can assign accusative or dative to their object experiencers (Jaeggli 1984, Burzio 1986, Franco 1990, Arad 1998), there is a relatively well-defined class in some languages where the experiencer only receives dative (Legendre 1989, Bouchard 1995, Anagnostopoulou 1999, Barđal 1999), as in Spanish *doler* 'to feel pain' or French *plaire* 'to like'. The distinction between accusative and dative marking will not be discussed in this paper: we will restrict ourselves to the first part of the classification.

It is largely agreed that there is a correlation between SEPVs and a state denotation (Grimshaw, 1990; Pustejovsky, 1991; Pesetsky, 1995; Meinschaefer, 2003). In contrast there is no consensus with respect to the aspectual value of OEPVs (cf. Martin, 2006 and references therein), here illustrated in Spanish. They have been traditionally treated as eventive, either as (dynamic) causative (Grimshaw, 1990; Pesetsky, 1995; Van Valin and LaPolla, 1997; Filip 2000), as telic predicates (Pustejovsky, 1991; Tenny, 1994) or as achievements (van Voorst 1992, within a general questioning of the traditional classification). Other authors, such as Meinschaefer (2003) and Kelling (2003) divide OEPVs in those that denote atelic processes and those that denote telic events. Still, a recent number of studies in different languages agree in considering OEPVs as statives, either as causative states (Arad, 1999; Pylkkänen, 2000) or as incho-

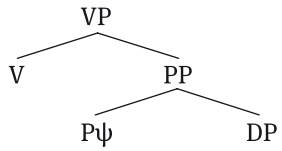
ative states (Rozwadowska, 2000; Vanhoe, 2004; Byaly, 2005; Marín and McNally, 2005, 2011; Marín, 2011). In this paper we will follow this last analysis, and specifically the claim that all SEPVs denote states, while all OEPVs denote states with an onset. But before we move on, there are two issues that we have to address.

1.2 Psychological structures, not psychological verbs

One first problem has to do with the definition of psychological verb itself. Unlike the perspective adopted in some works (cf. Meinschaefer 2003: 237), we do not want to rely on conceptual semantics, in such a way that every verb that expresses a situation which involves some mental state of the subject or object gets defined as a psychological verb. Structural properties are necessary in order to define a predicate as psychological.

In this sense, Doron (2003) and Landau (2010) make the following proposal: a psychological predicate gets defined in the grammar by the presence of a specific structure, which licenses an experiencer. The structure proposed by Landau is the one presented in (4), for OEPVs, where we keep Landau's proposal (2010: 8) about the verbal structure: an experiencer gets licensed by a prepositional structure. Note that Landau makes this claim only with respect to OEPVs; we will slightly revise his approach.

(4)



This explains that surface DP experiencers behave in a special way across languages: for instance, forcing resumptive pronouns in relative clauses in Hebrew (5). These facts can be accounted for by assuming that what looks as a DP is actually embedded under a structure that involves an additional level of structural complexity in the grammar: this additional level would force the presence of a resumptive pronoun instead of a (traditional) trace (5b).

(5) *ze* *ha-iš*$_i$ *še-ha-ma'* *amar* *hid'ig* **(oto*$_i$*).*
this the-man that-the-article worried him
'This is the man that the article worried.'
(Landau 2010, p. 5, ex. [5b])

Crucially, verbs which are conceptually interpreted as involving mental states but whose arguments do not behave in any exceptional way are not psychological verbs from the perspective of syntax. In order to avoid terminological confusion, in this article we will use the expression 'formal psych verbs' to refer to those that display a grammatical behaviour consistent with a structure like (4); verbs which might involve, at a conceptual level, a psychological notion but which do not display a special structural behaviour will be called 'conceptual psych verbs'. The generalisations that we will argue for in this article refer exclusively to formal psych verbs, and unless we explicitly say otherwise, the reader can safely assume the claims apply to only formal psych verbs.

We thus need some tests to identify a verb as formally psychological. Consider the contrast in (6) and (7) in Spanish.

(6) a. *Juan admira la sinceridad.* (SEPV)
Juan admires the sincerity
'Juan admires sincerity.'
a′. *??La sinceridad es admirada por Juan.*
the sincerity is admired by Juan
'Sincerity is admired by Juan.'
b. *La crisis asusta a María.* (OEPV)
the crisis frightens ACC María
'The crisis frightens María.'
b′. *??María es asustada por la crisis.*
María is frightened by the crisis
'María is frightened by the crisis.'

(7) a. *Juan respeta a María.* (verb involving a mental state of the subject)
Juan respects ACC María
'Juan respects María.'
a′. *María es respetada por Juan.*
María is respected by Juan
'María is respected by Juan.'
b. *Juan humilla a María.* (verb involving a mental state of the object)
Juan humilliates ACC María
'Juan humilliates María.'
b′. *María es humillada por Juan.*
María is humilliated by Juan
'María is humilliated by Juan.'

The contrast, which is stronger for some speakers than others, shows that not all psych verbs behave in the same way with respect to formal processes. The passive with a verb like *admirar* 'admire' is considered more marked than the one with the verb *respetar* 'respect'. Even with a frequent verb like *odiar* 'hate', google shows only 2 hits of the sequence *fue odiada por él* 'was hated by him' – in texts that seem written by non native speakers –, versus more than 5000 hits for *fue humillada por él* 'was humilliated by him'.[2] The same contrast takes place with *se*-passives.

(8) a. **Se* *admiran* *las* *virtudes.*
REFL admire.pl the virtues
Intended: 'Virtues are admired.'
b. *Se* *respetan* *las* *virtudes.*
REFL respect.pl the virtues
'Virtues are respected.'

Note that stativity cannot be the reason why passive constructions are out. With se-passives specially, stative verbs allow passives quite naturally; another advantage of se-passives is that they do not turn the patient into a theme, so the impossibility of applying it to psych predicates cannot be blamed on some restriction of their information structure.

(9) *Se* *tienen* *problemas.*
REFL have.pl problems
'One has problems.'

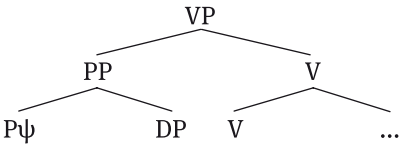
What explains, then, the contrast? It follows if the Spanish SEPV *admirar* 'admire' and the OEPV *asustar* 'frighten' – when not taking an agent subject – are formal psych-verbs, because in that case the object is not simply a DP argument. If it is a PP, the impossibility of having a passive structure here reduces to the general

2 Passive-like constructions with verbs like *odiar* 'hate' must have generic by-phrases, which has been interpreted by some (eg., De Miguel 1999) as evidence that the constructions are adjectival in nature and genericity is required in order to interpret the by-phrase as part of the properties of the subject. If a speaker accepts without any qualification a sentence like *fue odiado por él* 'was hated by him', as one of the anonymous reviewer seems to do, in our account that means that in that speaker's variety *odiar* is conceptually psychological, but not formally. We do expect some variation with respect to the specific exponents that materialise the formal psych structure, but the criterion would stay: only those that reject the passive, or other formal processes, are defined in that variety as formally psychological.

unavailability in Spanish of passives involving prepositional arguments.[3] This goes in line with Belletti and Rizzi (1988) and Grimshaw (1990), which argue that psychological verbs cannot build verbal passives.

Note, also, that the fact that some SEPV reject the passive also suggests that, contra Landau (2010) and in favour of Doron (2003), subject experiencers can also be defined by a PP structure; using Landau's representation, which we will revise in the course of this article, this means that we must have a structure like (10) underlying formal SEPVs.

(10)



In contrast, *respetar* 'respect' and *humillar* 'humilliate' would be verbs that conceptually involve psychological states, but formally their subject or object are not experiencers, and as such they allow a passive construction in the same way as other transitive verbs. The conclusion is that despite (conceptual) appearances verbs like *respetar* 'respect', *juzgar* 'judge', *tolerar* 'tolerate', *tiranizar* 'tyrannize', *criticar* 'scorn', *descuidar* 'neglect' or *amenazar* 'threaten' are not structurally psychological verbs in Spanish, but verbs belonging to other grammatical classes that happen to denote situations that involve a mental state, because they allow structural passives. Each language determines on its own whether a verb is structurally psychological or just denotes a psychological concept;

3 The availability of the passive with structural psychological verbs is dependent on the availability of passive structures with prepositional arguments in the language. This allows us to address some apparent counterexamples. Pesetsky (1995) and Tenny (1998) have argued that some OEPVs have verbal passives. Tenny's data, from Pittsburghese English, are particularly convincing. In this variety, *need* forms passives which can be shown to be verbal by a variety of tests – among them, the impossibility of substituting the participle with an adjective (i) –; this includes some OEPVs (ii), which thus seem to allow passives.

(i) The car needs {washed/ *clean}.

(ii) Nobody needs {irritated/ saddened/ discouraged} by the truth.

These do not constitute a problem for the claim. Note that English allows pseudo-passives, that is, passives where the grammatical subject corresponds to an argument introduced by a PP (iii).

(iii) This bed has been slept in.

Similarly, an experiencer in English would be able to become a derived subject in the passive, but not in Spanish, where pseudopassives are not documented.

the question is ultimately which mental states are grammaticalized with the structure of psych verbs and which are not, and the same concept might be translated in a language as a structural psych verb and in another one as a change of state.

If we consider all verbs that conceptually denote psychological situations, no grammatical generalizations emerge, because we put in the same basket objects of different grammatical classes; once we clean the selection and restrict ourselves to formal psych verbs, the data become clearer, because only structural psych-verbs are considered; our results in this respect are shown in Section 2 and Section 3.

1.3 Roots in different contexts: the flexibility of psych verbs

Before getting in detail into these data and the generalizations that emerge from them, another remark must be made. It has been repeatedly observed (see Van Voorst 1992 for a summary with respect to psychological verbs) that it is in practice almost impossible to assign single verbs to an aspectual or argumental class: more frequently than not, the same verb can be used in a variety of contexts, with aspectual and argumental shifts. This is why the permeability of the traditional classifications is a fact that has to be taken into account in any analysis of the relation between syntax and the lexicon.

In this article we adopt a non-lexicalist approach to the relation between lexicon and syntax (cf. Halle and Marantz 1993, Hale and Keyser 1993, 2002, Borer 2003, 2005). In this framework, it is not accurate to say that a particular verb belongs to a particular class. Instead of adopting an endoskeletal perspective where predicates are stored in the lexicon with a more or less stable set of properties that determine their projection in the syntax, we adopt an exoskeletal perspective where structures define the argumental and aspectual properties and specific exponents are late inserted into those structures (a situation sometimes refered to as 'allosemy', Levinson 2007, 2010; Marantz 2010).

Being a SEPV, for instance, is the short way of saying that a particular exponent, like *love*, can be inserted in a structure that defines a particular argument structure and an aspectual configuration. Even though, for expository purposes, we can give lists like those in (1) and (2), where we associate some items to the label SEPV, within an exoskeletal system this means that those exponents are compatible with a structure of SEPV, without defining them, *per se*, as SEPVs.

This property of exoskeletal theories is crucial to understand cases like those in (11), where it seems that SEPVs can be eventive.

(11) a. *La respuesta fue pensada por Juan.*
the answer was thought by Juan
'The answer was thought by Juan.'
b. *La propuesta fue considerada por Juan.*
the proposal was considered by Juan
'The proposal was pondered by Juan.'

In the surface, these sentences seem to be cases where an SEPV is used in the passive form, and this should contradict the claim that SEPVs are structurally special. However, a more careful observation shows that here the verbs are not used as psychological. The verb *pensar* 'think' in (13a) is used as a creation verb: Juan controls some process – that happens to be mental – which leads to the creation of an object – an abstract concept, an answer –; in (13b), the verb *considerar* 'consider' is used to denote a particular kind of activity, again controlled by the subject, which involves a voluntary action that happens to involve a mental state and perhaps should be more appropriately translated as 'ponder'. This pattern is very well-known: Vendler (1957) noted it for *think* and other verbs that can express mental processes controlled by a sentient argument: *admirar* 'admire', *imaginar* 'imagine', *suponer* 'suppose', *creer* 'believe'. Similarly, when the subject is a volitional agent, verbs like *frighten*, *worry* or *sadden* behave as normal accomplishments and lose their special psych verb properties. To say it simply: when their subjects are entities that volitionally start some process, these verbs do not behave as psychological predicates; reasons of space do not allow us to go through the evidence. Similarly, in line with previous work (Belletti and Rizzi 1988, Grimshaw 1990, Bouchard 1995, Arad 1998, McGinnis 2001), Landau notes that once an apparently psychological verb is used to denote a change of state triggered by an agent, it behaves grammatically as any other causative verb, that is, the argument conceptually interpreted as an experiencer behaves as a normal patient of change. Within this framework, this means that when the exponent is introduced in a structure which, instead of an experiencer, contains a DP patient and an agent, it is coerced into a change of state meaning. We refer the reader to Landau (2010: 32–45, 127–131) in this point.

In an exoskeletal system this only means that some exponents are compatible with the syntactic structure of an activity verb or an accomplishment. For explicitness, and although the details are orthogonal to our analysis – which concentrates on the properties of the structure and not on the conceptual compatibility of some roots with those structures –, let us assume that we have a set of exponents whose conceptual contribution belongs to the class of 'mental states'. This is a conceptual core, but the ultimate interpretation will be fixed by the syntactic structure. The difference will be whether the exponent is inserted in a structure

where a head V introduces a PψP – that is, the structure of a formal psych verb – or in one where V defines a volitional agent. In the second case, the mental state will be interpreted as the intended target of a change of state event, and moreover a change that is triggered by an external cause. In the first case, we will not have a change of state configuration, but a formal psych event where some experiencer is the holder of that mental state. Many roots would allow both construals – that is, will let themselves be inserted in the two structures, while others will reject the psych structure because they do not denote mental states (eg., *escribir* 'write', *comer* 'eat'); others will reject the agentive change of state structure because they express properties that are conceptualised as being always internally caused, so they reject agents (eg., *fascinar* 'fascinate', which rejects passive quite strongly for all speakers interviewed). In the remainder of this paper we will, whenever possible, illustrate the properties and the examples with roots like *fascinar* that can only appear in the psychological verb structures. Whenever this is not possible, we will set the context as clearly as possible so that the interpretation is the one corresponding to a psych structure.

2 The aspectual denotation of SEPVs and OEPVs

2.1 SEPVs are states

Although the issue is relatively uncontroversial, let us briefly review several tests and observations, taken from previous work on the topic, showing that formal SEPVs denote states. First, SEPVs are not compatible with the progressive periphrasis in Spanish, similarly as they reject the *être en train de* construction in French (cf. Meinschaefer, 2003; Kelling, 2003).[4]

4 An anonymous reviewer points out that occasionally SEPVs can be found in texts in the progressive form, as in this example:

(i) *Estoy detestando a los chavales de esta peli.*
I.am despising ACC the youngsters of this movie (Twitter, 31-03-2011)

Judging from this speaker's blog associated to the twitter account, (i) seems to be from a speaker of Peruvian Spanish that moved to Madrid. In Latin American varieties, other similar examples appear. To our ear of European Spanish speakers, (i) is ungrammatical, so it is likely that some dialectal variation might be at play here. However, and leaving this aside, note that the example is a psychological predicate that denotes an extreme emotion. The interpretation that the example gets is in accordance with this: the progressive does not describe one single psychological state, continued through time, but movement through degrees in a hating scale, whose maximal point is despise. The sentence denotes that the speaker has not attained that maximal degree yet, but is close to it.

(12) a. **Juan está amando a María.*
Juan is loving ACC María
'Juan is loving María.'
b. **Juan está odiando a María.*
Juan is hating ACC María
'Juan is despising María.'

Secondly, in their psychological verb reading, SEPVs do not accept modification by adverbs such as *lentamente* 'slowly' or *poco a poco* 'little by little', which denote properties (speed, incrementality) of the dynamic part of an event.

(13) a. **Juan ama a María lentamente.*
Juan loves ACC María slowly
b. **Juan detesta a María poco a poco.*
Juan despises ACC María little by little

Third, in European Spanish dynamic predicates are compatible with *parar* 'stop' (14a), but states are not (14b). SEPVs reject *parar* (14c).[5]

(14) a. *Paró de llover.*
it.stopped of to.rain
'It stopped raining.'

5 In European Spanish, states can only combine with *dejar de* 'stop'. However, in some varieties *parar* can combine with states, seemingly showing that in those varieties the boundary between *dejar de* and *parar de* is becoming fuzzy. This is possible when the eventuality is interpreted as habitual or gets instantiated in an unbound number of entities (i), but – as one anonymous reviewer points out – repetition is not a necessary condition (ii):

(i) *%En cierto momento, los españoles pararon de saber francés y empezaron a hablar inglés.*
in certain moment, the spaniards stopped of to.know French and started to speak English
'At some point, Spaniards no longer knew French and started to speak English.'

(ii) *%En algún momento parará de detestar a su madre.*
in some moment, he will.stop of despise ACC his mother
'At some point he will stop despising his mother.'

Again, this is an area where future comparative work across varieties is necessary in order to determine what rules the competition between *dejar de* and *parar de* in varieties where both are possible with states.

b. **Paró de saber inglés.*
s/he.stopped of to.know English
c. **Paró de amar a María.*
s/he.stopped of to.love ACC María

Now we will show that OEPVs also display stative properties.

2.2 The aspectual properties of OEPVs

2.2.1 Similarities with SEPVs

This section concentrates on showing that structurally defined OEPVs can be assimilated to the class of states. Consider the SEPVs in (15), which can be characterised as formal psych verbs based on the passive test.

(15) **Juan fue {consternado/ asustado/ obsesionado/ agobiado}*
Juan was {dismayed/ frightened/ obsessed/ stressed
por la crisis.
by the crisis

Spanish OEPVs are not telic if one considers standard tests (Dowty, 1979). First, they do not accept modification by *in* adverbials, while they accept modification by *for* adverbials. Even though one can imagine that someone is only aware of a situation after a while, and that after that while, a mental state starts, grammar cannot express this situation as in (16):

(16) a. *Esta situación ha {angustiado/ obsesionado/ preocupado}*
this situation has {stressed/ obsessed/ worried}
*a tus padres {*en/ durante cinco minutos}.*
ACC your parents {in/ for five minutes}
b. *La crisis ha {agobiado/ animado/ molestado} a*
the crisis has {upset/ encouraged/ bothered} ACC
*María {*en/ durante dos horas}.*
María {in/ for two hours}

Second, they are not compatible with verbs of completion such as *acabar* 'finish' or *terminar* 'finish'. In the real world we know that any mental state can finish, but we cannot use (17) to express that situation.

(17) a. **Esta situación ha acabado de {apasionar/ ilusionar/*
this situation has finished of {to.excite/ to.thrill/
interesar} *a tus padres.*
to.interest} ACC your parents

b. **La crisis ha acabado de {agobiar/ animar/*
the crisis has finished of {to.stress/ to.encourage/
molestar} *a María.*
to.bother} ACC María

Moreover, OEPVs do not pass standard diagnostics on dynamicity. First, OEPVs do not accept modification by adverbs such as *lentamente* 'slowly' or *poco a poco* 'little by little'.

(18) a. **Esta situación {angustia/ desespera/ ilusiona} a tus*
this situation {stresses/ despairs/ excites} ACC your
padres lentamente.
parents slowly

b. **La crisis {agobia/ anima/ molesta} a María poco*
the crisis {stresses/ encourages/ bothers} ACC María little
a poco.
by little

In this respect, one anonymous reviewer wonders whether genericity plays a role here, and might ultimately explain why these modifiers are not allowed. Note, however, that there is no reason why genericity should be incompatible with such adverbs, as (19) shows.

(19) a. *Los niños comen las lentejas lentamente.*
the children eat the lentils slowly
'Children (always) eat lentils slowly.'

b. *Los procesos geológicos suceden poco a poco.*
the processes geological happen little by little
'Geological processes take place little by little.'

Second, OEPVs are not compatible with *parar* 'stop'.

(20) **Esta situación ha parado de {afligir/ fascinar/*
this situation has stopped of {to.sadden/ to.fascinate/
interesar} *a tus padres.*
to.interest} ACC your parents

Third, they cannot have a habitual interpretation in the present tense. (21) can be interpreted as a state held by a group of people, distributively – each one of them at a possibly different time – or collectively – all at the same time –, but a reading where there are distinct time intervals during which the crisis triggers the state for some time, then stops and then starts again is unavailable, that is, we cannot have a reading where there is a series of eventualities during a time period.

(21) *La crisis {aburre/ irrita/ preocupa} a los ciudadanos.*
the crisis {bores/ irritates/ worries} to the citizens

In English event-denoting verbs must appear in the present progressive in order to obtain a reading where the action is taking place at the moment of utterance (22a). Just like other stative verbs, OEPVs do not require this form (22b) in order to get this reading; unlike the eventive (22c), (22b) is not interpreted as habitual.

(22) a. *Juan is reading a book.*
b. *The crisis worries Juan.*
c. *Juan reads books.*

2.2.2 Differences with SEPVs

Here we will provide evidence that, unlike SEPVs, OEPVs denote states and the onset of that state – its starting point or left boundary –.

If OEPVs include the state's initial boundary, we expect these predicates to be compatible with temporal modifiers that identify such boundaries, while SEPVs should be incompatible with them. Indeed, SEPVs reject temporal expressions such as *tan pronto como* 'as soon as', (23a), which highlights the starting point of an eventuality. Even if in the real world a father can instruct a child to develop admiration feelings for his brother, and tell him that he is not allowed to play until that happens, (23a) is impossible. It is, however, perfectly possible to express a similar thought with OEPVs: when an anguish feeling is reached, the worker is allowed to leave (23b).

(23) a. *??Tan pronto como/ en cuanto admires a tu hermano, nos vamos.*
as soon as admire.2SG ACC your brother, we go

b. *Tan pronto como/ en cuanto el trabajo lo agobie,*
as soon as the job him.ACC stress.3SG,
nos vamos.
we go
'As soon as his job stresses him, we will go.'

Similar contrasts take place with *desde* 'since', which identifies a particular temporal point with the onset of a situation. SEPVs do not provide this modifier with an onset of the state, but OEPVs do. Note that an iterative reading has to be avoided for the contrast to emerge: in the meaning that one single state started in 1985, (24a) is marked and (24b) is more natural, even though in both cases we intend to say that a particular mental state started holding of the experiencer at some point.[6]

(24) a. *??Juan admira la sinceridad desde 1985.*
Juan admires the sincerity since 1985
b. *La enseñanza aburre a Juan desde 1985.*
the teaching bores ACC Juan since 1985
'Teaching bores Juan since 1985.'

SEPVs behave as IL predicates, as it is well known in the literature (Kratzer 1995). For instance, they cannot be restrictors of temporal quantification because they do not involve anything more than a state without boundaries (25). In contrast, OEPVs can, despite their lack of dynamicity (26). This is expected if OEPVs include the initial boundary of a state, and that component is used to restrict temporal quantification, allowing thus iterativity.[7]

6 When introducing subordinate clauses, the *since*-modifier already provides the situation denoted by the sentence with a boundary, defined by the subordinate clause itself. In those cases, the combination with a SEPV is improved, as expected given that the event inside the subordinate clause satisfies the requisite:

(i) (?)*Ama a María desde que la conoció.*
love.3sg acc María since that her.acc met.
'He loves María since he met her.'

In English it is also possible to say *I have loved her since I am 14*. In addition to the presence of a subordinate clause in these sentences, here we have perfect aspect and a continuous perfect interpretation. This aspect also provides the main clause with a boundary that the Aktionsart of the predicate does not define, making it grammatical.

7 This pattern is reminiscent of other similar incompatibilities in the nominal domain: the quantifier *cada* 'each' cannot take as its restrictor a mass noun: **Cada aire llena una habitación* 'Each air fills one room'. Presumably, the same absence of boundaries underlies both ungrammaticalities.

(25) a. **{Cuando/ siempre que} {admira/ teme} tus reacciones,*
when(ever) {admire/ fear.3SG} your reactions,
sale de la habitación.
exit.3SG of the room

b. **Cada vez que {odia/ prefiere} las películas de terror,*
every time that {hate/ prefer.3SG} the movies of horror,
se va del cine.
SE leave.3SG from.the cinema

(26) a. *{Cuando/ siempre que} la crisis {impresiona/ obsesiona} a*
when(ever) the crisis {impresses/ obsesses} ACC
María, va al médico.
María, go.3SG to-the doctor
'Whenever the crisis {impresses / obsesses} María, she goes to the doctor.'

b. *Cada vez que la crisis {asusta/ enfada} a Marta,*
every time that the crisis {frighten/ anger.3SG} ACC Marta,
empieza a llorar.
start.3SG to cry
'Whenever the crisis {frightens / angers} Marta, she starts to cry.'

As it is well known, genericity is associated to IL predicates (Carlson 1977, Diesing 1988, Chierchia 1995, Fernald 1999, 2000). In this sense, note that the theme argument of SEPVs gets assigned a generic reading, which in English is manifested with a bare nominal and in Spanish forces the compulsory use of the definite article.[8]

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8 The case of *want* in English deserves a special attention: it seems to be an SEPV in English, and yet it behaves as an SL predicate in a number of tests, among them the fact that bare nouns get an existential reading when used as complements of this verb.

(i) John wants coffee.

The verb *want*, and its Spanish equivalent *querer*, seem to behave as a psychological verb from a structural perspective. Note, for instance, that *querer* rejects the passive.

(ii) **Un café es querido por Juan.*
a coffee is wanted by Juan

However, the reason for its unexpected behaviour can be found in the syntactic nature of the complement it takes. Both *querer* and *want* trigger syncategorematic readings of the object: they require that an implicit event is understood. What (i) says is not simply that John wishes an x, such as that x = coffee, but state John's desire to drink – or to buy – a coffee; the specific action that is understood is dependent on the pragmatic context and the lexical meaning of the complement (cf. also type coercion in Pustejovsky 1995), but it is compulsorily interpreted. This suggests that *querer* takes as a complement a more complex syntactic structure involving

(27) a. *John hates apples.*
b. *Juan odia *(las) manzanas.*
Juan hates the apples
'Juan hates apples.'

Past tenses trigger a lifetime effect with IL predicates; as IL properties are conceptualized as characterising an individual and temporally persistent, when they are stated from an individual in the past tense, the interpretation that emerges is one where the individual no longer exists, that is, has died or has disappeared (Kratzer 1995, Musan 1995, Mittwoch 2007, Magri 2009, Arche 2006). These lifetime effects – specially in the indefinite past – take place with SEPVs, but not with OEPVs.

(28) a. *Juan amó a María.*
Juan loved ACC María
'Juan loved María.'
b. *La crisis preocupó a María.*
The crisis worried ACC María
'The crisis worried María.'

In (28a) there is one salient interpretation where either María or Juan have died; in (28b), we do not have the interpretation that the crisis is over or that María has died: we simply interpret that a psych stage has ceased to exist, that is, that María is not frightened anymore about the crisis, which might very well be still in full force.

Finally, note that SEPVs reject the progressive periphrasis – unless, of course, they are coerced into a dynamic reading – (29a). In contrast, OEPVs accept the progressive periphrasis even without coercion (29b).

(29) a. **Juan está amando a María.*
Juan is loving ACC María
Intended: 'Juan loves María right now.'
b. *La crisis está preocupando a María.*
the crisis is worrying ACC María
'The crisis worries María right now.'

other functional projections, in line with its uses as an auxiliary in Spanish, and this special requisite might be behind this verb's unexpected behaviour. We will leave the specific analysis of syncategorematicity with *querer* for further research.

The compatibility of OEPVs with the progressive periphrasis could be interpreted as a sign of dynamicity (as, for instance, Meinschaefer 2003 does). Such an interpretation would imply ignoring the tests that show that these verbs do not have dynamicity (Section 2.2.1), and moreover, to forget that SL predicates which are clearly stative are also compatible with the progressive periphrasis. As Levin and Rappaport put it (1995: 170), "the ability to be used in the present progressive is not a test for nonstativeness, but rather is a test for a non momentary predicate. Since the stage-level interval statives [...] are non-momentary predicates, they can appear in the progressive". For instance, a predicate like *tener fiebre* 'to have a fever' or *tener ganas* 'to have cravings, to feel like' denotes a state – as shown by its incompatibility with *parar* 'to stop' (30) – and allows the progressive periphrasis (31).

(30) a. **El niño paró de tener fiebre.*
the child stopped of to.have fever
Intended: 'The child stopped having a fever.'

b. **El niño paró de tener ganas de comer.*
the child stopped of to.have cravings of to.eat
Intended: 'The child stopped feeling like eating.'

(31) a. *Cuando el niño está teniendo fiebre, conviene darle antibióticos.*
when the child is having fever, it.is.suitable to give-him antibiotics
'When the child has a fever, it is suitable to give him antibiotics.'

b. *Estoy teniendo ganas de regresar al trabajo.*
I.am having cravings to return to-the work
'I am feeling like returning to work.'

Likewise, predicates like *costar X euros* 'to cost X euros' or *pesar X kilos* 'to weigh X kilos' denote states, but they allow the progressive periphrasis when the property of having a particular prize or weight is conceptualized as a transitory one. Speakers allow sentences like (32), also documented in Google, whenever the measuring is associated to a scale and it is implied that there has been some change in the value or weight of the holder of that state; that is, as expected from SL predicates, when the property does not characterise the individual, but describes the present stage in which it is now found – hence the frequent combination with *ya* 'already', which presupposes some previous stage where the property did not hold –.

(32) a. *Un ordenador ya está costando quinientos euros.*
a computer already is costing five hundred euros
'A computer already costs five hundred euros.'
b. *David ya está pesando 118 kilos.*
David already is weighing 118 kilos
'David already weighs 118 kilos.'

Thus, we see that there is initial evidence that suggests that, while formal SEPVs are IL predicates denoting just a state, formal OEPVs are SL predicates which include the initial boundary of that state. The next section is devoted to showing that the distinct behaviour of the participles of formal SEPVs and OEPVs also supports the conclusion that the second are SL predicates.

3 Additional evidence: the participles of formal psych verbs

Participles have been analysed as transpositions (Beard 1995), that is, forms that keep most of the semantics of their base. If we concentrate on the aspectual properties of their base, the fact that participles essentially keep the base's information can be shown through a number of tests. With perception verbs a participle coming from an atelic verb gives an ongoing event reading, (33b), while those coming from telic verbs are interpreted as the result state following the culmination of an event, (33a).

(33) a. *Vimos la oficina destruida.*
saw.1PL the office destroyed
'We saw that the office had been destroyed.'
b. *Vimos la oficina vigilada.*
saw.1PL the office guarded
'We saw that the office was being guarded.'

3.1 *Ser* and *estar*

A traditional observation in Spanish grammar – which has been questioned, as we will see – is that *ser* and *estar* distribute according to the IL/SL contrast (Luján 1981, Fernández Leborans 1995, Arche 2006). *Ser* combines with IL predicates, temporally persistent properties, predicates that classify or give characteristics of individuals, etc. *Estar* combines with SL predicates, transitory properties, charac-

teristics of situations where the individual is, etc. Let us start with the observation that in Spanish the participle of SEPVs is unable to combine with the SL copulative verb *estar* (34) – it must combine with *ser* –, while the equivalent participles of OEPVs must combine with *estar* in the same context (35).

(34) a. *Juan detesta a Luisa.*
Juan hates ACC Luisa
b. *Luisa {es/ *está} detestada.*
Luisa {is_{ser}/ is_{estar}} hated

(35) a. *Luisa preocupa a Juan.*
Luisa worries ACC Juan
b. *Juan {*es/ está} muy preocupado.*
Juan {is_{ser}/ is_{estar}} very worried

Remember that (34b) cannot be analysed as a passive; in Section 1.2 we saw some evidence of this, but there is more evidence. Consider the interaction with tense. The Spanish periphrastic passive is marked with imperfective tenses, unless a habitual interpretation emerges (36a). It is actually more acceptable when the tenses are perfective (36b), (36c). In the case of (34a), the pattern is the opposite: the habitual reading is impossible (37a) and so are the perfect tenses, except for a lifetime effect reading of (37c), implying that María was despised for her whole life, but is now dead.

(36) a. *Las leyes son violadas una y otra vez por este gobierno.*
the laws are violated one and another time by this government
'The laws are violated once and again by this government.'
b. *Esta ley ha sido violada.*
this law has been violated
c. *Esta ley fue violada.*
this law was violated

(37) a. **María es detestada una y otra vez por Juan.*
María is despised one and another time by Juan
'María is despised once and again by Juan.'
b. **María ha sido detestada.*
María has been despised
c. *#María fue detestada.*
María was despised

The construction with *ser* and the SEPV participle is not interpreted as a habitual in the present, because it denotes an ongoing property that does not imply a change of state. Indeed, in (38a) it is not necessary that the teacher moved from a state of being not-feared to one of being feared for the sentence to be true. In contrast, to the extent that it is acceptable in a habitual reading, (38b) necessarily implies that there is some change that at least has been started.

(38) a. *Este profesor es {temido/ odiado}.* [Non-habitual]
this teacher is {feared/ hated}
b. *Las mansiones son construidas en el parque.* [Habitual]
the houses are built in the park

The participle in the passive construction allows frequency adverbs that quantify over the event and manner modifiers (39a) – this is descriptively known as a verbal participle –. In contrast, the participle of a SEPV has the properties of the so-called adjectival participle, to the extent that it denotes a property compatible with degree adverbs, like *muy* 'very' *bastante* 'quite' (see also 39b).

(39) a. *La casa fue {mal/ *muy} construida dos veces.*
the house was {badly/ very} built two times
b. *Vlad fue {muy / *mal} temido en su época.*
Vlad was {very/ badly} feared in his time

Thus, we conclude that participles of SEPVs combine with *ser* in structures that are not passive. The occurrence with *ser* must be, then, caused by something else, and specifically, suggests an IL nature for these predicates. In contrast, participles of OEPVs can combine with *estar* and reject *ser*.

(40) *Juan {está /*es} muy {aterrorizado/ preocupado/ entristecido}.*
Juan {is$_{estar}$ / is$_{ser}$} very {frightened/ worried/ saddened}

Now, this test must be taken with a grain of salt, given that *estar* does not always express SL predicates (see Camacho 2012 for an exhaustive presentation of the reasons). There are alternative theories about the distinction between *ser* and *estar* which assign aspect just a secondary role. For some authors, like Mangialavori (2013), what makes *estar* special is not an aspectual property, but its locative nature. Indeed, when used to locate entities into some space, *estar* is used whenever the entity located is an object, and *ser* is used whenever it denotes and event

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(41). Note that the position occupied by Spain is temporally persistent, and still *estar* is used in such cases.

(41) a. *España está en el sur de Europa.*
Spain is in the south of Europe
b. *La fiesta es en el tercer piso.*
the party is in the third floor

Other alternative theories highlight the nature of the implicit comparison expressed by each one of the copulae. Falk (1979) and Franco and Steinmetz (1986), from different perspectives, both note that *ser* compares the individual to a standard value and *estar* compares a temporal slice of the individual to other temporal slices. Finally, there is also an evidential use of *estar* (Roby 2009), where a characterising property of an individual – thus, IL – is presented as subject to the personal opinion of the speaker, and *estar* is used. This use is restricted to valorative adjectives.

(42) *Esta sopa está estupenda.*
this soup is wonderful
'In my opinion, this soup is wonderful.'

This complex situation has led some authors – most relevantly, Maienborn (2005) – to argue that the choice between the copulae in Spanish is motivated by pragmatic factors, and is only tangentially related to a SL/IL distinction. It is possible, also, that these other uses can be subsumed under specific interpretations of the SL/IL contrast (see Brucart 2010 for an analysis in this sense), but the issue is too complex to be addressed in a few paragraphs.

Conversely, and although counterexamples are not so frequent, *ser* has been argued to combine with SL predicates at least in one case: with evaluative adjectives (43) in readings where particular behaviours in specific situations are described (see Stowell 1991, Martin 2006, among others, for this claim).

(43) *Juan fue cruel con María en la fiesta.*
Juan was cruel with María in the party
'Juan was cruel with María at the party.'

Given this evidence, the conclusion is that the distribution of *ser* and *estar* is overlapping with that of IL vs. SL predicates, but by no means it can be claimed to be identical. Thus, the different choice of copulae by each class of participles, though suggestive of a different aspectual nature, is not conclusive. However, there are

other tests that reflect in a more direct way the IL vs. SL nature of a predicate (Marín 2010, Camacho 2012).[9]

3.2 Pseudocopulative verbs

Pseudocopulative verbs – those verbs that, although having also a use as lexical verbs, can be used to introduce nominal and adjectival predicates in sentences that have the properties of copulatives – provide evidence for the distinction. These verbs, that express changes-of-state or the maintenance of a particular state, combine with nominal and adjectival predicates taking into consideration their aspectual type, and more in particular, whether they are IL or SL (Morimoto and Pavón 2007). Among these verbs, there is a group, (44), which only combines with SL predicates (Marín 2010, Camacho 2012).

(44) *andar* 'walk', *ir* 'go', *venir* 'come', *quedar(se)* 'remain', *llevar* 'carry', *seguir* 'continue', *continuar* 'continue', *mantenerse* 'maintain', *permanecer* 'remain'.

As shown by Marín (2010), IL adjectives such as *mortal* 'mortal' and *budista* 'budhist' cannot combine with those pseudocopulative verbs, conversely to SL adjectives such as *descalzo* 'barefoot' or *desnudo* 'naked':

(45) a. **Alberto {anda/ va/ se ha quedado}*
Alberto {walks/ goes/ REFL has remained}
{mortal/ budista}.
{mortal/ buddhist}
b. *Marta {anda/ va/ se ha quedado} {descalza/ desnuda}*.
Marta {walks/ goes/ REFL has remained} {barefoot/ naked}

9 There are of course other tests used in the literature, but which cannot be applied to Spanish. Carlson (1977) notices the famous contrast in how bare noun subjects are interpreted with each class of predicate: generics with IL (*Firefighters are brave*) and existentials with SL (*Firefighters are available*). To some extent, this distinction transfers to Spanish, but the ungrammaticality of preverbal bare noun subjects in the language makes the test dubious, as the contribution of the determiner interferes (Benedicto 1998).

(i) a. *Los estudiantes son inteligentes* (IL, preferably generic)
the students are intelligent
b. *Los estudiantes están enfermos* (SL, preferably existential)
the students are sick

Certain verbs from (44), such as *seguir*, *continuar*, *mantenerse* or *permanecer* select predicates expressing non temporary persistent properties when used as pseudocopulative verbs. As these verbs state temporal persistency, combining them with an adjective that is already assumed to be temporary persistent gives anomalous results.

(46) a. *Juan {sigue/ permanece} {desnudo/ *budista}.*
Juan {continues/ remains} {naked/ buddhist}
b. *Juan {sigue/ se mantiene} {contento/ *mortal}.*
Juan {continues/ REFL maintains} {glad/ mortal}

The following examples show that participles of SEPVs pattern with IL adjectives, while participles of OEPVs pattern with SL adjectives:

(47) a. **Alberto {anda/ va/ se queda} {amado/ odiado}.*
Alberto {walks/ goes/ REFL remains} {loved/ hated}
b. **Marta {sigue/ permanece} {adorada/ detestada}.*
Marta {continues/ remains} {adored / detested}

(48) a. *Alberto {anda/ va/ se queda} {enamorado/ preocupado}.*
Alberto {walks/ goes/ REFL stays} {in.love/ worried}
b. *Marta {sigue/ permanece} {aburrida/ obsesionada}.*
Marta {continues/ remains} {bored/ obsessed}

3.3 Adjunct small clauses

Adjunct small clauses modifying objects or subjects are restricted in Spanish to SL predicates, with few exceptions noted in McNally (1994).[10] (49) illustrates the

10 McNally (1994) argues that the anomaly of having adjunct small clauses with IL predicates presumably has to do with a presupposition. In contexts where the presupposition does not hold, we expect that the combination of IL predicates improves in several constructions. This is the case in (i), where the adjective *catholic* is used in a context where it is possible that the person changes his religious confession. The sentence talks about Johannes Aventinus, someone that lived through the religious wars of the early XVI Century in Europe, and in that context the information that he never changed his confession is informative.

(i) *Aventinus se mantuvo católico durante toda su vida.*
Aventinus REFL stayed catholic for all his life
'Aventinus stayed a catholic for his whole life.'

contrast with subject-oriented small clauses; (50), with object-oriented small clauses.

(49) a. *Juan salió de la ducha {desnudo/ *budista}.*
Juan came.out of the shower {naked/ budhist}
b. *Marta volvió de vacaciones {exhausta/ *inmortal}.*
Marta came.back of holidays {exhausted/ immortal}

(50) a. *Tengo la camisa {sucia/ *textil}.*
have.1SG the shirt {dirty/ textile}
b. *Me bebí {caliente/ *arábico} el café.*
ME drank.1SG {warm/ arabic} the coffee

Unlike participles of SEPVs, participles of OEPVs can be secondary predicates even when the main predicate denotes a short time span:

(51) **Juan volvió del congreso {odiado/ amado/ soportado}.*
Juan came.back from-the conference {hated/ loved/ borne}

(52) *Juan salió de la reunión bastante {perturbado/ asqueado/ encantado}.*
Juan came.out of the meeting quite {distressed/ disgusted/ delighted}

Similarly, as secondary predicates some IL are possible, provided that the context is set in such a way that the information that the property is persistent is informative. A sentence like (ii) is possible, because the property denoted, although characteristic of an individual and used to classify sentient entities into groups, is not presupposed to hold also of the moment of birth and during the long period defined by the whole life span of a person can change; contrast this with (iii), where the period defined by the main predicate is short enough for the temporal persistence presupposition to hold. Note that here the verbs are interpreted in a non literal way, as it is not entailed that people have a political affiliation since birth: collectively, they suggest that, against what could be the case, my father has never changed his political ideas, and will never change them. In contrast, with SL predicates none of these conceptual conditions on the time span considered and metaphorical interpretations are necessary to assign a felicitous interpretation to the secondary predicate (iv).

(ii) My father was born a democrat, and he will die a democrat.

(iii) *My father sang the national anthem a democrat.

(iv) My father sang the national anthem naked.

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Third, predicate absolute constructions such as those in (53) are only allowed with SL predicates.

(53) a. *Juan, {atónito/ *español}, respondió a la pregunta.*
Juan, {puzzled/ Spanish}, answered to the question
b. *María, {hambrienta/ *inteligente}, compró los regalos.*
María, {hungry/ intelligent} bought the presents

Participles of SEPVs are not accepted in absolutive constructions, unlike participles of OEPVs:

(54) **Juan, {amado/ odiado/ anhelado}, alcanzó la presidencia.*
Juan, {loved/ hated/ wished.for}, reached the presidency

(55) *Juan, {repugnado/ excitado/ animado}, llamó a su esposa.*
Juan {disgusted/ excited/ cheered.up} phoned ACC his wife

Fourth, absolutive constructions introduced by *con* 'with' are also restricted to SL predicates.

(56) a. *Con Luis {desnudo/ *budista}, no puedo concentrar-me.*
With Luis {naked/ budhist}, not can.1SG concentrate-myself
b. *Con Marta {hambrienta/ *humana}, no podemos hacer la película.*
With Marta {hungry/ human}, not can.1PL make the movie

This is why only participles of OEPVs can be inside the absolute construction with *con*:

(57) **Con los accionistas {adorados/ detestados/ odiados} no podemos firmar el acuerdo.*
with the shareholders {adored/ hated/ hated} not can.1PL sign the agreement

(58) *Con los accionistas {escamados/ indignados/ sublevados/ mareados/ agotados}, no podemos firmar el acuerdo.*
with the shareholders {suspicious/ upset/ stirred.up/ dizzy/ exhausted} not can.1PL sign the agreement

3.4 Coordination

Notice also that IL predicates cannot be conjoined with SL predicates in English or Spanish (59). In the same way, SEPVs participles cannot be conjoined with predicates independently diagnosed as SL, but OEPVs can (60).

(59) a. *Juan seems Spanish and {intelligent/ *naked}.*
b. *Juan parece español e {inteligente/ *desnudo}.*

(60) a. *Juan parece contento y {animado/ *querido}.*
Juan seems happy and {encouraged/ loved}
b. *Juan parece triste y {enfadado/ *detestado}.*
Juan seems sad and {angered/ hated}

4 Technical implementation

Once we have arrived at this point, we have provided empirical evidence of two claims: that SEPVs are stative, and more specifically behave as IL predicates, and that OEPVs are also stative and behave as SL predicates. Several questions arise at this point, and the purpose of this final section is to address them and show how they can follow from previous proposals. We will concentrate on the following two questions: what is the difference between IL and SL inside a typology of states? Why should OEPVs behave as SLs?

4.1 Two types of states, IL and SL

The proposal that states are not an atomic class, but should be divided into smaller groups, is by no means new. In the last few years, Maienborn's (2005) proposal that states should be divided into Kimian (or pure) states and Davidsonian states, the later endowed with an event variable, has received some attention (Rothmayr 2009, for instance). This proposal does not try to accommodate in this divide the distinction between IL and SL predicates, as both fall inside the class of Kimian states – see Maienborn (2005) for a discourse-based explanation of the distinction –. However, others have made proposals in this line; next to the classic work of Dowty (1979) and Bach (1986), researchers like Olsen (1997) or Chang (2003) have claimed that states should be divided in bounded and unbounded states. More recently, Husband (2010: 120–133) argues that some states are homogeneous, while others are quantized, establishing a more or less precise

parallelism with boundedness inside the nominal domain: homogeneous states correlate with mass nouns, and quantized states, with count nouns.

What we have seen, given the set of previous tests, is that OEPVs aspectually behave in a way different from SEPVs. Specifically, we have seen that while SEPVs denote pure states, OEPVs include the starting point of that state – in the terminology we adopt, they are inchoative states –. We have seen, furthermore, that the behaviour of SEPVs is that expected of an IL predicate, while OEPVs act as SL predicates. This leads us to the conclusion that at least two classes of states have to be differentiated (61): pure states, which are always IL predicates, and inchoative states, which are interpreted as SL predicates.[11]

(61) a. Pure state: ----------
b. Inchoative state: [----------

Now, the distinction between IL and SL predicates is an extremely complex one, so we want to be very careful and explicit about the extent of our main claim, which reduces to this: the aspectual properties of SEPVs define them as IL predicates, and the aspectual properties of OEPVs define them as SL predicates. Our claim cannot rule out the possibility that there are other stative configurations that define a predicate as SL – eg., possibly a state with a final boundary can be classified as SL –: we just say that the structure of SEPVs is not one of them, because they are single states without boundaries and this completely unbounded character does not let them be interpreted as SL.

Similarly, we have no claim with respect to the distribution of *ser* and *estar* in Spanish, because these copulae are not distributed in a perfect way with respect to the IL/SL distinction. That said, there are aspects of the grammar of *ser* and *estar* – within the prototypical aspects of their IL vs. SL distributions – which support the idea that the existence of an initial boundary of the state is one of the factors that count in order to define some property as stage level. At least since the descriptive Hispanic grammarians of the 19th century (Salvá 1831) it is known that adjectives can be interpreted as SL predicates to the extent that the properties denoted by them can be understood as the result of an implicit process;

11 It is unclear whether inchoative states should be considered a type of quantized states. As one anonymous reviewer points out, the distinction between homogeneous and quantized states is problematic when one tries to cross it with an IL/SL division – eg., quantized nouns like three apples are still IL in a sense, and moreover cannot combine with *estar* –. For this reason, we are careful not to equate the distinction identified with a division between homogeneity vs. quantization.

that is, to the extent that there is an onset of that set of properties. Fernández Leborans (1995), in modern terminology, interprets this characterisation relating *estar* to the transition to a result state, but remember that this cannot extend to all uses of *estar*.

In (62), the properties denoted by the adjectives are interpreted as coming as a result of a process, implicit or explicit. In (62a), the property expressed by the adjective is already conceptualized as one that has to be acquired after a transformation; the same in (62b). The adjective in (62c) is interpreted in the context as the result of some previous process.

(62) a. *La fruta está madura.*
the fruit is$_{estar}$ ripe
b. *Luis está listo.*
Luis is$_{estar}$ ready
c. *La mesa está sucia.*
the table is$_{estar}$ dirty

In contrast, when the property is not the result of a previous process, and thus has no onset, *ser* is selected. This way, *ser sucio* implies necessarily that the entity characteristically has the property of being dirty, without the dirt coming as the result of any change. The proposal that SL predicates have boundaries as part of their interpretation is confirmed by the fact that these predicates can restrict temporal quantification, as shown in (63), vs. the cases where *ser* is used and the property is characteristic of the individual (64).

(63) *Cada vez que la mesa está sucia, la limpiamos.*
every time that the table is$_{estar}$ dirty, it.ACC clean.1PL
'Every time the table is dirty, we clean it.'

(64) **Cada vez que Juan es sucio, salgo de la habitación.*
every time that Juan is$_{ser}$ dirty, leave.1SG from the room

We, thus, claim that states with an initial boundary are defined as SL predicates. We will use the term 'inchoative state' to describe this kind of state. Note that this is partially overlapping with the notion of inchoative adjective presented in Choi (2012) for Korean. In her work, Choi argues that Korean has a class of adjectives, to which *hwana* 'angry' and *cichi* 'tired' belong, which among other properties cannot combine with an overt inchoative marked *-eci* 'become', which pure stative adjectives allow. The compatibility with certain aspectual markers would, then, be another grammatical manifestation of the IL/SL distinction.

(65) **Mina-ka ice-nun hwana-eci-n-ta*
Mina-nom now-top angry-inch-pres-decl
Intended: 'Mina is getting angry.'

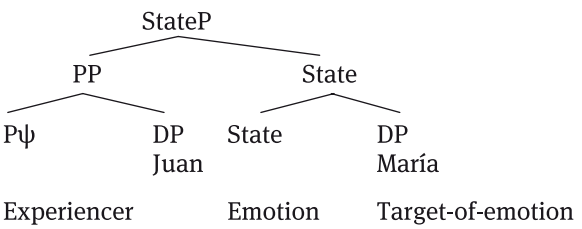
Her proposal is that the property associated to *hwana* already expresses the initial point of the state; combining it with an inchoative marker is impossible because inchoativity is already expressed in the internal structure of the adjective. In Choi's proposal, inchoativity is an additional head that defines the structure as a verb, and this is where we part ways with her account: in the next section, we will derive the presence of an initial boundary from the configuration, instead of associating a specific head to it. The main advantage of this step is that by not positing a specific head 'inchoative' which codifies as a block the aspectual properties of the entity, we avoid associating initial boundaries to a specific grammatical category, and this allows a more general account that potentially can be extended to other grammatical categories. Our approach will try to derive the result from the configuration where the situation is defined.

4.2 Deriving IL and SL from the syntactic structure of psychological verbs

Let us now move to the following question: why would OEPVs be defined as SL predicates? We will show that this derives without further stipulations from the structure proposed for OEPVs by many authors before us. The proposal that several authors have presented in their analysis of psychological predicates is that SEPV predicates have, in some sense, a more basic structure than OEPVs (see Pesetsky 1995, Arad 1999, Pylkkänen 2000, 2002, Broekhuis 2008, Greenall 2004, Biały 2005, Husband 2010 for some recent references; cf. Martin 2001 for some arguments against). We would like to pursue this idea in order to derive, rather than stipulate, their aspectual properties. Following Pesetsky (1995: 192–221), OEPV predicates are systematically built over the structure of SEPV predicates by adding a causative layer of structure. This extra layer of structure provides the predicate with an onset of the state denoted by the lower layer, as the causer is the trigger of the state and, thus, the state does not start until it is caused by it.

We follow the spirit of the aforementioned authors in the idea that (66) is the structure of a SEPV like *temer* 'fear' (see also Ramchand 2008: 55–56). This is the core of a formal psych structure: a state denoting an emotion which relates an experiencer with the target of that emotion.

(66) *Juan teme a María.*
Juan fears ACC María
'Juan fears María.'

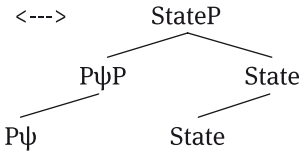


Note that the object DP is a target-of-emotion, not a causer-of-emotion. In SEPVs there is no entailment that the object has done anything which triggers the emotion. In (66), specifically, there is no entailment that María has done anything that causes Juan to fear her.

This explains two properties of formal psych verbs that, as we will see, are also present in the more complex OEPV structure. First, formal psych verbs are expected to be states, because their core structure is stative, that is, it simply relates the holder of the emotion with the entity towards which the emotion is directed. Second, it explains why formal psych verbs contain an experiencer: this must be so because the kind of state that a psych verb denotes is special. It is a mental state, so the holder must have some additional entailments: it must be sentient, and it must be conscious of that state. If we assume that only a StateP can select a psych PP phrase, the two properties are tied as the core of a formal psych construction.

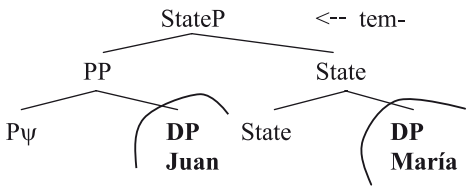
One anonymous reviewer points out that a shortcoming of this approach is that the experiencer P is phonologically null and has no separate phonological materialisation in any known language. While we have seen some evidence that an additional structural layer introduces the experiencer in formal psych verbs, this is certainly a potential problem, and we would like to say a few words about it. One option is that the P is expressed cumulatively by the same exponent that materialises the verb. In an OEPV, which – as we will see – involves an additional level of verbal structure, this could be handled by traditional P-incorporation to the highest verbal head, but this solution would not work in the case of SEPVs on the standard assumption that incorporation always targets higher nodes. We would like to suggest that a Phrasal Spell Out approach (Weerman and Evers-Vermeul 2002, Neeleman and Szendröi 2007, Caha 2009, Fábregas 2009, in press) could capture the facts. In this approach, exponents can lexicalise complex syntactic constituents provided they form syntactic constituents. Assume that the entry of an exponent associated to a formal SEPV like *tem-* 'fear' is the one in (67).

(67) tem- <---> StateP



What this means is that, once the DPs have been lexicalised by their own exponents, the remaining structure – which, ignoring the already lexicalised parts is a constituent – is cumulatively expressed by a single exponent, as in (68), where we mark in bold the pieces that have already been lexicalised.[12]

(68)

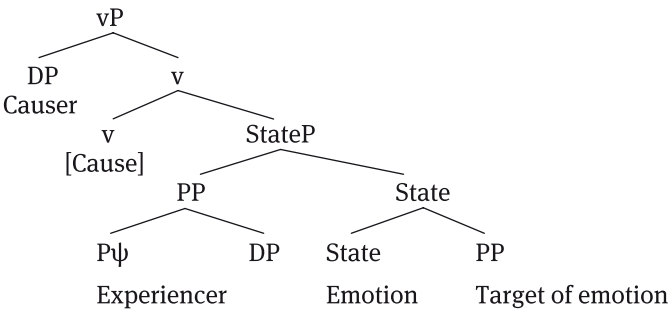


Admittedly, it is a disturbing fact that – to the extent of our current knowledge – no language has a separate exponent for Pψ. This might be an accidental gap, or it might conform to some deeper reason; for instance, one could think that the cognitive saliency of mental states is reflected in the lexicon by associating always the psych P to entries which codify the mental states themselves. However, this is just a speculation, and we admit that, while there is evidence for extra structure in the case of formal psych verbs, the lack of designated experiencer Ps is a cause of worry that might lead to a deep revision of the general framework where we include our analysis.

12 Remember that exponents associated to formal psych verbs are sometimes inserted in non psychological structures (Section 1.3). Prima facie, associating those exponents to a Pψ layer might look as a contradiction with this fact. Nevertheless, it is not. The problem here is a problem of how to codify the flexibility of an exponent in a system where they do not merely correspond to bare roots. In Caha's (2009) approach, vocabulary insertion is mediated by the Superset Principle, that allows an exponent to match a syntactic structure which is smaller than its entry provided the syntactic structure includes the lowest node in the exponent's lexical entry, and assuming no other exponent is more specific for that entry. Thus, given the entry in (75) we expect the exponent to be able to materialise also a State head (which is the lowest node there, given c-command). This is what we suggest happens when a psych exponent is used in a change of state configuration with an agent.

Let us now move to OEPVs. We suggest that these verbs share the psych core with SEPVs but introduce above it an additional level of structure, which involves a causation component.

(69)



In other words: OEPVs have three participants in the mental state: two that were shared by SEPVs – experiencer of an emotion and target of an emotion – and a new one, the causer of that emotion. The initial plausibility of this structure comes from cases where each one of these participants is expressed by a different phrase.

(70) a. *El Madrid [...] lo enfadó con Pellegrini.*
the Madrid him.ACC angered with Pellegrini
b. *... un arranque flojo que hasta lo preocupó con el promedio.*
a start weak that even him.ACC worried with the average
'a weak start that even worried him about the [point] average.'

The examples in (70) are taken from Google.[13] Note that in (70a) there is an emotion – anger – experienced by someone, and directed towards Pellegrini. As happened with SEPVs, there is no entailment that Pellegrini did anything to trigger the emotion. Conversely, there is no entailment that any anger is directed towards Real Madrid: it is stated, though, that Real Madrid, willingly or not, has

13 The fact that these examples are attested, and accepted by native speakers, shows that the Target/Subject Matter restriction (Pesetsky 1995: 60–63) is not active in Spanish in the same way Pesetsky reports for English, as he claims that contrary to what the distinctness of these arguments predicts, causers cannot co-occur with targets. If the difference is confirmed, of course the question is what causes it. We do not have an answer at this point, but presumably the difference has to do with differences in the prepositional elements available in each language.

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triggered a certain emotion which is directed towards Pellegrini. See Klimek and Rozwadowska (2004) for equivalent constructions with three arguments in Polish.

As one anonymous reviewer points out, one alternative analysis would be that the target-of-emotion participant is actually an adjunct here. This could be supported by the different marking that this participant receives in SEPVs and OEPVs. However, note that the difference in marking could come as a by-product of Case assignment – the verb is unable to license the case of two internal arguments –, and, moreover, that the semantic entailments are consistently those of a target-of-emotion, a property that would be unexplained if with OEPVs such constituents were adjuncts. Moreover, this third argument cannot be simply viewed as something that further specifies which aspects of the causer participant are involved in the emotion. It is not necessary that there is any semantic connection between the causer and the third participant. Consider, for instance, (71). Here, the newspaper article does not need to talk about Juan's son. It might be talking about a possible invasion of Thailand, but this possibility triggers in Juan an emotion which is directed towards his son, to the extent that he will have to live in a world full of wars.

(71) *El artículo del periódico preocupó a Juan por su hijo.*
the article of-the newspaper worried ACC Juan for his son
'The newspaper article made Juan worry about his son.'

In addition to keeping the experiencer and the target and adding an extra argument, there are other pieces of evidence that suggest that OEPVs are one layer more complex than SEPVs. Pesetsky (1995: 45–46) observes that OEPVs are morphologically more complex than SEPVs in Japanese; the same happens in Spanish. Consider the following pairs:

(72) a. *am-a ~ en-amor-a*
love-ThV pref-love-ThV 'cause to love'
b. *temer ~ a-temor-iz-a*
fear pref-terror-ise-ThV 'frighten'

Two properties of these pairs are relevant as evidence for our structures. First of all, the OEPV contains all the morphemes that the SEPV contains: the roots *am-* and *tem-*, and the theme vowels that mark these as verbs. Secondly, in these examples the verbal character of the OEPV is not marked just by the presence of the theme vowel, but also by extra morphemes: prefixes like *en-* or *a-* and the suffix *-iz-*. In general, the tendency with OEPVs is that they are marked as verbs by

extra morphology, either by specific causative verbalizers or by parasynthetic schemas that include a prefix.[14]

This higher level of morphological complexity can be easily accounted for in our analysis. The causative vP is materialized as *en-* or as the set formed by the prefix *a-* and the suffix *-iz-*:[15] these morphemes systematically come accompanied by a causative semantics.

As one anonymous reviewer points out, these suffixes allow for a directed locative change meaning (*en-carcel-a*, lit. en-jail-ThV 'to put in jail'). As the reviewer suggests, one could think that these affixes have a core locative meaning, and as such *en-am-or-a* 'cause to love' would be a metaphorical extension, 'to put someone in a love state'. This might very well be the case, but note that our core claim is independent of this: that the affix is associated with a causative meaning. We do not find the morphology *en-* ... *-a* or *a-* ... *-iz-a* with locative verbs that do not have a causative component; for instance, directional unaccusatives never have it even though they entail change in location.[16] What is crucial for us is that the affix is associated to a head with causative meaning; whether this causative meaning applies to a locative change or not is a separate question, and presumably has to do with the conceptual semantics associated to each one of the exponents involved in the construction, as well as with assumptions about the way in which an entity is related with the subsequent state (see specially Mateu 2002 for this). Note, finally, that the structure has a crucial structural difference with a

14 The theme vowel in Spanish cannot be analyzed as a verbalizer, as suffixes independently diagnosed as verbalizers are combined with the theme vowel as well:

(i) *pur-ific-a*
pur(e)-ify-ThV

We assume here that theme vowels are a morphological marker taken by words belonging to the verbal category, but that it does not turn in itself a word of another category into a verb (cf. Oltra-Massuet 1999 for a possible analysis compatible with this assumption).

15 We are aware that analysing *a-* ... *-iz* as a discontinuous morpheme – essentially, a circumfix – is an oversimplification, as the two segments are attested independently of each other. This is a case of parasynthesis and, of course, this is a well-known problem in morphological research (see Scalise 1983, Corbin 1987, Crocco and Iacobini 1993, Schroten 1997, among many others) that would deserve an article of its own. Although acknowledging that it is preferable to have a structure where the prefix and the suffix occupy distinct positions, for the purposes of our argumentation it is enough to show that OEPVs involve an additional layer of structure, and this problem is orthogonal.

16 In Spanish we know of no cases where these exponents appear in verbs that do not have a causative subject. Of course, many of these verbs have *se*-versions with an anticausative meaning, but in those cases the presence of *se* suggests that an additional layer over the causative head has been introduced (see Koontz-Garboden 2009 for an elaboration of these ideas, which we assume).

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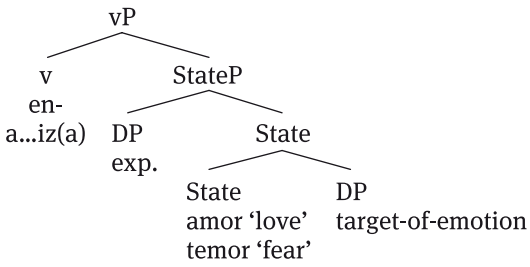
locative change like *en-carcel-a* 'put in jail': here there is no eventive component expressing a dynamic process – remember the tests in Section 2.2.1 showing that OEPVs lack dynamicity and telicity –. What is shared with these structures is causation, and the interpretation that what is caused is a state which could be interpreted as locative.

(73)



Note that we do not decompose *amor* and *temor* into two morphemes but treat them as underived nouns. The reason for this is that *-or*, although it seems to be a productive nominalizer in Latin, is not productive in Spanish (only a bunch of other nouns related to stative verbs, like *olor* 'smell', *dolor* 'pain' and *sabor* 'taste' show this segment). We thus assume that these nouns are stored as underived units in the lexicon of Spanish.

As can be seen in (73), the analytical decision that we have taken amounts to treating StateP as a projection that can be materialized at least[17] as a verb or as a noun, depending on the context. When dominated by an explicit causative v, State tends to take the exponent used to spell out a noun, like *temor* and *amor* without a theme vowel. In contrast, when immediately dominated by the functional verbal projections – that is, without an intermediate little v –, it takes the verbal exponents *am-* and *tem-* with the theme vowel. This approach is reminiscent of Bouchard's (1995) approach to *frighten* as 'cause fright to someone', with the verbal structure embedding a nominal constituent which, after an operation of chuncking that replaces a set of nodes by one single node, gets spelled out as

17 In other cases, the morphological decomposition suggests that State is spelled out by an adjective: *en-trist-ecer*, 'pref-sad-suff', 'to sadden', from an adjective *triste* 'sad' that can be an IL predicate. Our label State is purposely neutral with respect to grammatical category features precisely for this reason: it seems that empirically it is necessary to allow states to be spelled out at the very least by verbs, nouns and adjectives. Given this approach, in other cases we expect the root to be the exponent materialising State; this is the case whenever the verb is not morphologically decomposable – as in *preocupar* 'worry' – and the noun is derived from it. See Hale and Keyser (2002: 208–213) for the proposal that prepositional structures can also denote states.

a verb. The same result where a single element spells out a set of features can be obtained through a variety of procedures: head movement and fusion (Halle and Marantz 1993), spanning (Ramchand 2008) or phrasal spell out (Caha 2009). As this is orthogonal to our purposes, we will remain neutral with respect to which specific operation triggers this syncretic spell out.

Indeed, in our list of OEPVs there are a fair number of verbs that are morphologically decomposable into a noun, a verbalizer (prefixal, suffixal or both) and the theme vowel (74). Many others are decomposable into an exponent that materializes alone as a noun plus the theme vowel (75). Crucially, the nouns in both cases (76) denote states, as noticed in Sanromán (2005) and in Fábregas et al. (2012). This confirms our decomposition.

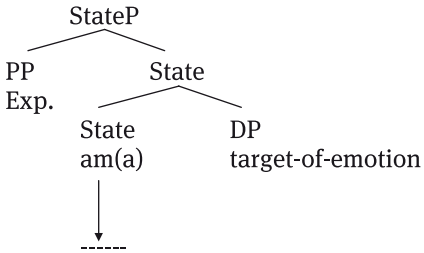
(74) a. *a-pac-igu-a*
pref-peace-vrbl-ThV
b. *a-pesadumbr-a*
pref-sadness-ThV
c. *en-fur-ec-e*
pref-fury-vrbl-ThV
d. *a-pasion-a*
pref-passion-ThV

(75) a. *enfad-a*
anger-ThV
b. *alivi-a*
confort-ThV
c. *enoj-a*
anger-ThV
d. *conmoción-a*
commotion-ThV

(76) *paz* 'peace', *pesadumbre* 'sadness', *furia* 'fury', *pasión* 'passion', *enfado* 'anger', *alivio* 'confort', *enojo* 'anger', *conmoción* 'commotion'.

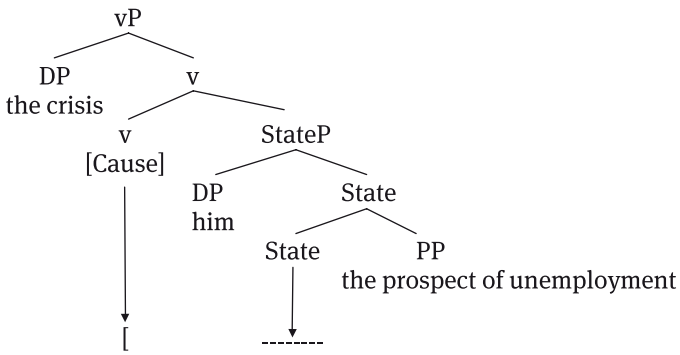
Given this converging evidence, the conclusion is that Pesetsky's (1995) proposal for OEPVs can be extended to Spanish, perhaps, even more clearly than in other languages, given the availability of three participants. Consider now how the two structures translate into pure states and inchoative states, respectively. An SEPV only denotes a state, a static relation between a sentient entity and the target of its emotion. No ingredients are available in order to define an onset of that state.

(77)



In contrast, in an OEPV structure, there is a causation layer, which accommodates the causer of the emotion. This causer must be necessarily present for the emotion to be triggered, and this causation of the emotion defines an onset of that state.[18]

(78)



This structure has two subevents, in classical terminology: the initiation component and the state. Note that, crucially, lacking from here is an event argument expressing a dynamic process – as these verbs reject adverbs like *rápido* 'fast' –. This forces the initiation component to be interpreted as the onset of a state – not as the onset of a process which leads to that state –. While world knowledge tells

18 Admittedly, the details of the formal implementation of this semantic proposal remain to be fully worked out. An anonymous reviewer, whom we remain grateful to, suggests that a possible implementation could take advantage of Lewis' (1973a, 1973b) counterfactuality requirement of causation: to the extent that the idea of causation requires that the caused event should not hold before the event that causes it, it should follow that in the presence of a causative head, a situation must have an onset which is defined no earlier than the time period during which the causation component holds. We believe that this explanation is on the right track. See, however, the critiques to the counterfactuality requirement (McDermott 1995, Price 1996, Hausman 1998, Elga 2000, among others), and Lewis' reply (Lewis 2004).

us that most states have a starting point – *to be tall, to be rich, to know English* –, OEPVs denote this initial boundary by virtue of their internal syntactic structure, and this is what allows aspectual and temporal operators to make direct reference to that onset, unlike what happens with pure states (Section 2.2.2).

These ideas concerning aspect, argument structure and syntactic complexity in the domain of psychological verbs allow us to derive, rather than stipulate, a generalization presented in Pylkkännen (2000: 430) relating the presence of causation and the type of state. This author notices that causativity is not *per se* incompatible with stativity, but with IL stativity. In other words, if a state has a causation component it cannot be IL. Remember that this empirical generalization has also been shown to apply of Spanish: causative states behave as SL predicates. In our system, it is not that there is any selectional incompatibility between a state and causation, or between a type of stative head and causation. We do not need to postulate two different kinds of states among the syntactic primitives of natural languages, but rather we can derive from the same elements whether the state is IL or SL. If causation is present, it must be interpreted as an SL state because it contains a (left) boundary in its denotation; if there is no causation and the state is 'pure', not selected by another eventuality, then no boundary will be defined, with the result that the state will be IL. Presence of the causation makes the state SL.

Our proposal, also, allows us to determine what structure will behave as an SL predicate without having to rely on conceptual characterisations as the trigger for how the predicate will behave (cf. Goy 2001). Distinctions having to do with the way in which different kinds of emotions are conceptualised, like those studied in Sanromán (2005), do not determine whether they are IL or SL predicates in our analysis. Rather the contrary: the structures that underlie these predicates determine the kind of state denoted, and as an effect of it, whether the associate emotion – expressed as a noun, and adjective or a verb – will be conceptualised as IL or SL.

At the same time, and as an anonymous reviewer correctly points out, it is fair to say that we have not worked out the way in which a non categorised root can combine with some syntactic configurations, but not others – in other words, we have not answered the question of why only some roots can appear in psych verb configurations of either kind –. This aspect is a common shortcoming of exo-skeletal theories, and it is sometimes solved through idiosyncratic lexical entries that stipulate the context of insertion of roots (as in Harley and Noyer 2000), an undesirable solution to the extent that it would just move the stipulation from a syntactic level of analysis to a lexical component. A full theory of the connection between the content of roots and the configurations where they can appear, thus, is still to be proposed.

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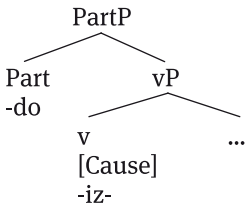
4.3 Interaction with the participle

Consider finally the participial form of the verbs under analysis. We follow the assumption that the participle morpheme is the spell out of an (external) aspect head, particularly one with stative meaning (Embick 2004). As can be seen by the morphological make up, this projection builds on top of the subeventive verbal projections, without suppressing any of them. This is visible because the participle does not remove any verbal affix related to subevents, for instance, the causative one (79).

(79) *a-terror-iz-a-do*
pref-terror-suff-Thv-ptcp

Generally, Spanish participles are associated to passive construals, and as such they demote the causer or agent when the base verb has a causation component (81).

(80)

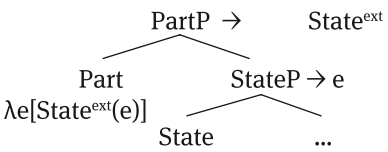


We will treat the participial head as a stativizer that takes the eventuality (e) denoted at the vP level by the verbal predicate and gives a state related to that eventuality. The state denoted by the participle belongs to the domain of external (or grammatical) aspect, and is thus independent of the subeventive specification of verbs internally. For this reason participle forms of verbs can have a stative interpretation even when the verbs themselves lack a stative subevent (cf. Fábregas and Marín 2012):

(81) a. **Destruyeron la casa durante un mes.*
destroyed.3PL the house during one month
b. *La casa, destruida durante un mes, fue reconstruida*
the house, destroyed during one month, was rebuilt
después.
later

For the same reasons, this external stative aspect can directly select the StateP of an SEPV, even if it also denotes a state: the participle requires only an eventuality, not a dynamic eventuality, and the two kinds of states belong to different domains (subevents vs. grammatical aspect).

(82)



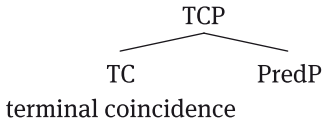
Consider now why the participle of an OEPV should denote a SL predicate: it is so because it is built on top of a structure that defines an onset. As such, the state denoted by the participle contains that onset and, therefore, it is not homogeneous. In contrast, the participle of a SEPV denotes a homogeneous state, because there is no onset and therefore the predicate is cumulative and divisive.

5 Conclusions and extensions

We started this article making reference to the body of work that has noticed that aspectual relations at the lexical level are not exclusive of the verbal category, and, although they might have received different names in the linguistic tradition, they share a common vocabulary of primitives. We pointed out that this take on aspect is compatible with a theory that derives the lexical aspectual structure from general principles of interpretation associated to syntactic configurations rather than from features of individual lexical items. In this article we have argued that in the domain of psychological predicates, a generalization can be established that OEPVs denote SLs, while SEPVs are ILs, and that this distinction can be derived from the internal syntactic structure of these predicates.

This is, of course, not the end of the story. If SL predicates are built over IL predicates by adding extra layers, then we make the straightforward prediction that adjectives that can appear in both uses must contain additional layers in their SL use. Given the syntactic instantiation of this category, heads codifying causation are not readily available with adjectives, but we predict that a separate structure that defines an initial boundary for that property would produce an SL reading of that adjective. Brucart's (2010) analysis of SL adjectives is germane to our approach. In his view, what turns an adjective into an SL predicate is the presence of a terminal coincidence preposition (Hale 1986) that dominates the predicational structure of the adjective.

(83)



Terminal coincidence relations define a boundary where two entities touch each other. This approach is the same one we have tried to develop here for stative verbs: the adjective defines a non dynamic situation and the terminal coincidence P introduces a boundary, given its semantic contribution, that – by the configuration – appears to the left of the property. We obtain, thus, (84). In IL properties, the TCP layer would be absent and as such there would be no initial boundary.

(84) [-----

Following the spell out assumptions of Phrasal Spell Out, this would imply that adjectives that are ambiguous between IL and SL readings – eg., *fat* – are lexically IL, and they turn into SL predicates when the extra layer is added. Adjectives that are always SL – eg., *naked* – would be adjectives whose lexical entry lexicalises a terminal coincidence preposition next to the usual adjectival projections. Although this deserves a paper of its own, note that this prediction is coherent with the analysis of SL predicates put forth also in Uriagereka (2001), Gallego and Uriagereka (2009), and Camacho (2012), which have in common the proposal that SL predicates are defined by an extra layer of structure.

Similarly, countability in the nominal domain – which would be another instance of quantization – has been interpreted as involving an extra layer of structure with respect to the mass version, most clearly in Borer (2005), where a Classifier Phrase is necessary to divide the substance expressed by the noun into countable portions.

In this paper we have left several open issues that are necessary to offer a complete picture of IL and SL in the domain of verbs. Perhaps the biggest of them is the nature of the *se* forms with psychological verbs, and the nature of its relation with the construction studied in this paper. Of course, the Romance clitic *se / si* is an extremely complex issue, as it ranges a wide variety of readings – passive, middle, anticausative, reflexive, impersonal ... –, and even the most basic questions about the *se*-version of a verb lack an obvious answer; necessarily this topic has to be left outside of this paper, as it can only be addressed – we believe – inside a general discussion of what the syntactic and semantic role of *se* is (see Schäfer 2008, Medová 2009 for some recent proposals in relation to other language families). Another question that our paper leaves unanswered involves the characterisation of the different participle classes: what the relevant specification

of target vs. result participles is, and whether these correspond to different kinds of states which can be diagnosed by tests that go beyond their combination with adverbials (Kratzer 2000), motivating that they correspond to substantially different internal syntactic structures. Similarly, it is also relevant the question of how this aspectual behaviour is to be compared to Maienborn's (2005) influential distinction between Davidsonian and Kimian states, and more in particular whether Davidsonian states (like *sit*) include any (initial) boundary or not.

Finally, we have not said anything about the role of the participle in other constructions, as we have restricted our discussion to those participles that have traditionally been classified as adjectival. Therefore, we have not studied the aspectual properties of passive sentences, which always combine with *ser*, the typically IL copula, despite their dynamic meaning. These important questions, necessary to obtain a complete characterisation of the semantics of the participle, will have to be left for further research, but we hope to have been, at least, able to offer at this point a coherent analysis of a fragment of the grammar of psych verbs and the IL/SL distinction.

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