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How to obtain a copula from a process verb: Insights from the event structure of posture verbs

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Posture verbs (*sit, stand, lie*) seem to constitute an aspectual class of their own, as they do not readily fit the description of either states or activities. The contradicting results obtained from applying various diagnostic tests, which group posture verbs with either states or activities depending on the test's sensitivity, have led to the creation of additional classes of states, namely, interval states (Dowty 1979) and Davidsonian states (Maienborn 2005), to account for the particular nature of the events denoted by these verbs. These approaches leave unanswered why equivalent verbs such as *sentar* 'sit' in Spanish, a Romance language, but also *setzen* 'sit' in German, a Germanic language, cannot denote stationary motion by themselves. This paper proposes that it is not necessary to introduce additional types of events to account for the lexical aspectual properties of posture verbs in English. Instead, it is their basic aspectual make-up, that is, their having a single process subevent (procP) (Ramchand 2008), and the labile nature of English that can explain their recalcitrant properties and the cross-linguistic issues they raise, while at the same time offering a seamless explanation for the propensity of posture verbs to become copulas cross-linguistically.

1 Introduction

The uncertainty surrounding the lexical aspectual properties of posture verbs in English such as *sit, stand,* or *lie* in their 'simple position' sense (i.e., when they denote disposition of a stationary object relative to a ground) has led linguists to the creation of different categories to account for their seemingly incompatible features: on the one hand, they resemble events in that they pass some of the same tests that set eventive verbs apart (1a); yet on the other, they also behave like states in that they are devoid of both change and agency (1b). To add to their ambiguity, unlike most stative verbs, they can also be used in causative contexts such as the causative meaning illustrated in (2a) and the 'assume position' reading illustrated in (2b).

(1)   a.   The socks are lying under the bed.
       b.   *What the socks did was lie under the bed.   (Dowty 1979:173, (62a, 62a'))

(2)   a.   I sat the child on the chair.
       b.   The child sat on the chair.

Another important issue this paper aims to tackle is how to reconcile the fact that posture verbs do not show the same properties cross-linguistically, so that, for example, Spanish *sentar* 'sit' cannot be used in the same way as English *sit* to express stationary disposition. That is, *sentar* 'sit' requires the verb root to appear as a participle preceded by the copula *estar* 'be' (3–4).

(3)   The child sits on the floor.

(4)   Spanish
       a.   *El   niño sienta en el   suelo.
             The child sits   on the floor
             'The child is sitting on the floor.'

       b.   El   niño está sentado en   el   suelo.
             The child is   sit-PTCP on   the floor
             'The child is sitting on the floor.'

The questions that arise regarding these verbs are related to their argument structure and event structure. Specifically, we propose that the challenges these verbs pose stem from the meaning codified in their lexical entries pertaining to causation and path encoding, which is subject to cross- and intra-linguistic variation. The differences in causation and path encoding in Germanic and Romance languages are introduced in Section 1.1. On the other hand, event structure notions like dynamicity and stativity are important to understand how posture verbs may instantiate both causative events and stationary disposition in English, as well as these verbs' tendency to become copulas cross-linguistically. These matters are introduced in Sections 1.2 and 1.3, respectively.

The rest of the paper is structured as follows: in Section 2, we discuss the internal aspect of posture verbs and propose a different approach to overcome the limitations encountered by previous work on posture verbs. Section 3 presents Ramchand's (2008; 2014; 2018) framework, on which our proposal is based. In Section 4, we explain how the differences in causativity and path encoding can lead to a better understanding of these verbs' properties. In Section 5, we disentangle the co-event and copular uses of posture verbs and shed light on their propensity to grammaticalize into copulas. Finally, Section 6 concludes.

1.1 Posture verbs in cross-linguistic comparison

Posture verbs can express various meanings pertaining to the position of a figure (Levin & Rappaport Hovav 1995) (see **Table 1**). The *simple position* meaning refers to cases where the posture verb denotes the physical disposition of a stationary figure relative to a ground. Typically, Germanic languages have at least three intransitive verbs to instantiate this meaning, exemplified in English by the triplet *sit, stand, lie*. In tight connection with the simple position meaning, the *maintain position* meaning is conveyed by adding to the same three verbs the idea that a deliberate "effort" was employed in maintaining the posture. Finally, a particle may accompany these verbs to elicit the *assume position* meaning as in *sit down, stand up, lie down*, in which an event of change in posture is described that necessarily involves a single animate entity to bring it about and undergo it. On the other hand, the causative meaning is expressed by parallel transitive verbs (in English *sit, stand, lay*), which describe a caused change of state brought about by an agent on a theme. In contrast, Romance languages deploy a different, yet equally productive, strategy to express the different meanings. In Spanish, for example, the causative sense is built using the transitive verbs *sentar* 'sit', *levantar* 'stand', and *tumbar* 'lay', from which the assume position meaning is then achieved by means of a reflexive pronoun (*sentar-se* 'sit down', *levantar-se* 'stand up', *tumbar-se* 'lie down'),[1] a pattern also followed in some Germanic languages such as German, Swedish, or Icelandic.[2] The way in which posture verbs express these three meanings in various Germanic and Romance languages is shown in Table 1, with the reflexive pronouns required to convey the assume position meaning marked in boldface. As in English, a tight connection can be established in Spanish between the simple and maintain position meanings. The basis of both meanings is the copula *estar* 'be', which appears along with a result participle (stemming from the transitive posture verb). For example, the equivalent triplet of posture verbs in the simple position meaning is *estar sentado* 'sit', *estar levantado* 'stand', and *estar tumbado* 'lie', to which the reflexive pronoun *se* is added to create the maintain position sense (i.e., *estar-se sentado* 'sit',

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[1] We note in passing the parallel between the contribution to telicity of the clitic *se* in Spanish (and other Romance languages) and that of particles such as *up* in English with certain verb classes. For further discussion, see De Miguel & Lagunilla (2000), Folli & Harley (2005), Armstrong (2013), and Lewandowski (2021), among many others.

[2] The examples for Swedish and Icelandic were obtained from Viberg (2013) and Jóhannsdóttir (2006), respectively.

estar-se levantado 'stand', and *estar-se tumbado* 'lie'). Yet, it is possible to find some similarities among Romance and Germanic languages in that every Romance language has at least one verb expressing stationary motion (in the simple position sense) that does not require the use of a copula (e.g., Fr. *gésir* 'lie', Cat. *jeure* 'lie', Sp. *yacer* 'lie').[3]

	SIMPLE POSITION MEANING	ASSUME POSITION MEANING	CAUSATIVE MEANING
GERMANIC LANGUAGES			
English	sit	sit down	sit
	stand	stand up	stand
	lie	lie down	lay
German	sitzen	**sich** setzen	setzen
	stehen	**sich** (auf)stehen	stellen
	liegen	**sich** (hin)legen	legen
Swedish	sitta	sätta **sig** ner	sätta
	stå	ställa **sig** / resa **sig**	ställa
	ligga	lägga **sig**	lägga
Icelandic	sitja	setja-**st**	setja
	standa	standa upp	
	liggja	leggja-**st**	leggja
ROMANCE LANGUAGES			
Spanish	estar sentado	sentar-**se**	sentar
	estar levantado / de pie	levantar-**se**	levantar
	estar tumbado / yacer	tumbar-**se**	tumbar
Catalan	estar assegut / seure	asseure'**s**	asseure
	estar aixecat	aixecar-**se**	aixecar
	estar tombat / jeure	tombar-**se** / ajeure'**s**	tombar / ajeure
French	être assis	**s**'asseoir	asseoir
	être levé / debout	**se** lever	lever
	être allongé / gésir	**s**'allonger	allonger

Table 1: Posture verbs across Romance and Germanic languages.

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[3] For reasons of space, we can provide here only brief characterizations of the causative, assume position, and maintain position meanings, though there is further discussion of the causative and assume position meanings in Section 4. The reader is referred to Gómez Vázquez (2020) for additional examination of the properties of the maintain position meaning in Germanic and Romance languages.

Cross-linguistically, posture verbs vary in crucial ways in terms of how their causative and non-causative meanings are obtained. For example, English and Spanish differ in the optionality of the prepositional complements specifying the endpoint of the path (5–6),[4] the need for anti-causative morphology in the assume position and maintain position meanings (6–7), and their ability to encode stationary motion (8).

(5)   Causative meaning in English and Spanish
 a.   I sat the child *(on the chair).
 b.   I sat the child down (on the chair).
 c.   Yo senté al   niño (en la silla).
   I   sat   DOM.the child on the chair
   'I sat the child on the chair.'

(6)   Assume position meaning in English and Spanish
 a.   The child sat *(on the chair).
 b.   The child sat down (on the chair).
 c.   El niño se   sentó   (en la silla).
   the child REFL sat.down on the chair
   'The child sat down.'

(7)   Maintain position meaning in English and Spanish
 a.   The child sat on the floor (for an hour).
 b.   El niño se   estuvo sentado en el suelo adrede (durante una hora).
   the child REFL was   sit-PTCP on the floor purposely for   an hour
   'The child sat on the floor purposely for an hour'.

(8)   Simple position meaning in English and Spanish
 a.   John sits on the floor.
 b.   John is sitting.
 c.   *El niño sienta en el   suelo.
   the child sits   on the floor
    'The child is sitting on the floor.'

What sets these languages apart from each other is the different way in which they encode path and causation. This is the approach presented in this paper, which will be formulated in terms of Ramchand's first phase syntax (Ramchand 2008). Spanish, a verb-framed language, encodes path information in the verb root (5c) (Talmy 2000),[5] which will be identified with the *res* head in the

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[4] Spanish, being a verb-framed language, can encode path/result information in the verb root (5c) instead of by means of a satellite (*down*) as seen in the immediately preceding English example (5b).

[5] See Acedo Matellán & Mateu (2015) and Levin & Rappaport Hovav (2019) for two recent overviews of the vast literature on Talmy's (2000) lexicalization patterns.

first phase syntax (Ramchand 2008; see Section 3). By contrast, English can take on an additional element such as a prepositional phrase (PP) to codify the path, consistent with its satellite-framed nature. Therefore, the verb root need not instantiate the *res* head of the event. On the other hand, these languages represent two different poles of the typology of causation encoding: English follows the labile strategy, while Spanish uses the anticausative strategy (compare (5) and (6)). With Ramchand (2008) we will assume a causativization approach for English, which presupposes the existence of a null *init* head merged on top of the first phase syntax to introduce the initiation subevent. Consequently, two main patterns are identified for posture verb roots: a complex first phase syntax consisting of initiation (initP), process (procP), and result (resP) phrases, and a simple one comprising a single procP. After examining the lexical inventory of posture verbs in Romance and Germanic languages, we conclude that both patterns are available in these languages (see Section 4). The contrast in (8) will be shown to be a direct consequence of the way path and causation are encoded in these languages. These facts are further discussed in Section 2 and are essential to the analysis presented in the subsequent sections of the paper on the event structure of posture verbs and their grammaticalization into copulas.

1.2 The aspectual properties of posture verbs

When it comes to lexical aspect, the aforementioned differences in path and causation encoding can help shed light on the aspectual properties of English posture verbs expressing the simple position meaning, which have been argued to constitute an aspectual class of their own, as they do not readily fit the description of either states or activities (see Section 2). The contradicting results obtained from applying various diagnostics, which pair them with either activities or states depending on the test, has led to the creation of additional classes of states, namely, interval states (Dowty 1979) and Davidsonian states (Maienborn 2005), to account for the nature of the events denoted by posture verbs. In this paper we propose that it is not necessary to resort to additional types of events such as Davidsonian or interval states to account for the properties of these verbs but rather, it is sufficient to look at their basic aspectual make-up, that is, the fact that they have a single procP, as well as the labile nature of English. Posture verbs in their simple position sense will be argued to be a non-dynamic type of event. We follow Silvagni (2017), who argues that dynamicity is orthogonal to the existence of an event and proposes that the presence of a spatio-temporal unit is the defining property of events. Dynamicity results from the existence of an initiating entity able to trigger an action and to create a sequence of spatio-temporal units, which are interpreted as a succession of stages. Eventually, the fact that posture verbs in their simple position meaning can encode a process subevent will help explain how they may become copulas cross-linguistically. That is, the copularization process will remove all manner of posture meaning to leave only the aspectual information available in the verb root, which under our proposal amounts to the existence of a spatio-temporal stage.

These notions are discussed in Section 2. In Section 3 we introduce the necessary modifications to the denotations of Ramchand's event phrases, since for her dynamicity is an integral part of what defines an event and has its locus in procP. Instead, we propose that procP simply contains a spatio-temporal unit in its denotation and, hence, dynamicity is obtained either by means of an initP, which introduces an entity able to initiate the event, or as the result of two contiguous subevents, which are consequently interpreted as process and result.

1.3 Posture verbs as copulas and co-events

Posture verbs may behave as either copulas or co-events. While copulas stemming from posture verbs are devoid of lexical meaning, posture verbs used as co-events provide manner information about the configuration of the figure along with aspectual information.

A copula is usually defined as a linking element appearing with non-verbal predicates and their subjects, which can either contribute no meaning to the predicate or carry some of its original (aspectual or modal) meaning, as well as accumulate verbal inflections like tense, aspect, and mood. In Germanic languages, posture verbs expressing the simple position meaning seem to act as copulas, linking a PP to the subject of the predicate. For example, the following English posture verbs (9) do not contribute any posture meaning but rather help relate the figure to the ground locating it in space.

(9) a. New Orleans lies at the mouth of the Mississippi River.
     b. John's house sits at the top of a hill.
     c. The new building stands at the corner of First Avenue and Main Street.
     d. That argument rests on an invalid assumption.   (Dowty 1979:174, (67))

When posture verbs are used to locate non-human figures, the choice of verb is determined by the figures' geometric properties. Thus, the core meaning of posture verbs is metaphorically extended. Ameka & Levinson (2007) provide the criteria in (10) for English posture verbs, specifying the properties that the figure must meet (see also Newman 2002).

(10) a. *Stand*: when long axis is canonically vertical.
      b. *Lie*: when long axis is canonically horizontal.
      c. *Sit*: when there is no major axis, or object has a wide base in canonical position.
      d. *Hang*: when not supported from below.

Thus, even though posture verbs neither impose selectional restrictions nor determine the number of participants, they still contribute semantically to the resulting construction by performing a localizing function (Hengeveld 1992). For example, the Dutch posture verb *zitten* 'sit' (11b) in no way specifies the posture of the figure *Jan* when used in combination with an amount of space such as *France*, but rather acts as a *localizing element*. By contrast, the use of the posture verb in (11a) corresponds to the co-event use, adopting Talmy's (2000) terminology, since it includes lexical information, that is, the figure's manner of posture, in addition to information about its location.

(11) a. Jan zit   op de bank.
          Jan sit-PRS-3SG on the sofa
          'Jan is sitting on the sofa.'

      b. Jan zit   in Frankrijk.
          Jan sit-PRS-3SG in France
          'Jan is in France.'   (Hengeveld 1992:238, (3,4))

Thus, we can conclude that posture verbs may have two stable versions synchronically, a copular version or a full-fledged lexical one (i.e., one which instantiates a manner of posture co-event along with aspectual information). The full-fledged lexical version may convey the causative, assume position, and simple position meanings, where posture meaning is present across the board. The copular version corresponds to a smaller set of cases obtaining from the simple position meaning, in which the posture meaning is fading, thus allowing that the verbs be used with inanimate or abstract figures that are not subject to being placed in any posture (see (9)). In the latter case, the verb may also contribute aspectual meaning, for example, durative aspect (Hengeveld 1992), which tallies with our assuming the existence of a single process subevent in the denotation of these verbs' roots in languages such as English. In Section 2 we turn to a more detailed discussion of the aspectual properties of posture verbs expressing the simple position meaning in Germanic languages.

2 The internal aspect of posture verbs

Dowty (1979) discusses a class of English "stative" verbs denoting posture that, counter to expectation, are compatible with the progressive tense, which should only be acceptable with verbs that include the notion of change or agency in their meaning. Yet, these "stative", and therefore non-dynamic, verbs can bypass this restriction on the use of the progressive tense (12).

(12) a. The socks are lying under the bed.
      b. Your glass is sitting near the edge of the table.
      c. The long box is standing on end.
      d. One corner of the piano is resting on the bottom step.   (Dowty 1979:173, (62))

Despite being amenable to being used in the progressive, posture verbs are ungrammatical with the phrase *what x did was…*, used to test for agency, which might not be that surprising after all since these events have an inanimate entity as subject (13).

(13) a. *What the socks did was lie under the bed.
      b. *The glass is sitting near the edge, and the pitcher is doing so too.
      c. *The box is standing on end, which I thought it might do.
      d. *The piano did what the crate had done: rest on the bottom
          step.   (Dowty 1979:173, (62'))

Dowty notes that these verbs are acceptable in the progressive if the entity is moveable or has recently moved or might move somewhat soon. This seems to be the reason behind the differences in acceptability for the sentences in (14), where a locative relation is predicated of different non-animate figures and a ground.

(14) a. New Orleans lies at the mouth of the Mississippi River.
      a'. ??New Orleans is lying at the mouth of the Mississippi River.
      b. John's house sits at the top of a hill.
      b'. ??John's house is sitting at the top of a hill.
      c. The new building stands at the corner of First Avenue and Main Street.
      c'. ??The new building is standing at the corner of First Avenue and Main Street.
      d. That argument rests on an invalid assumption.
      d'. ??That argument is resting on an invalid assumption.   (Dowty 1979:174, (67))

To account for these contrasts, Dowty assumes Carlson's (1977) thesis that the progressive can only appear with stage-level predicates, that is, those involving a predication of a stage of an individual. By contrast, object-level predicates such as *know, love, like, believe*, etc., in other words, those predicated of an individual, are incompatible with the progressive. We are then to conclude that posture verbs are stage-level predicates, a conclusion we will endorse here. For that matter, the progressive should only be compatible with stage-level predicates. Dowty further concludes, against Taylor (1977), that not only activities and change of state events require an interval (i.e., a sequence of temporal moments) to be true, but also the English posture verbs *sit, stand, lie,* etc. should be included in this list. Thus, he proposes a three-way classification of stative predicates depending on whether they can be predicated of intervals or moments (15).

(15) a. Interval predicates: *sit, stand, lie,* etc.
      b. Momentary stage-level predicates: *be on the table, be awake,* etc.
      c. Object-level statives: *know, like, be intelligent,* etc.   (Dowty 1979:180)

While Dowty's identification of the properties of posture verbs is insightful, he only deals with their non-agentive use, what we are calling here the simple position meaning, and thus provides a somewhat limited snapshot, as it does not explain why these verbs may be used under other circumstances in contexts requiring an agentive entity (compare (13) with (16)) and, furthermore, denoting a change of state. Yet, Dowty shows that even though some predicates behave like eventive verbs in that they allow the progressive tense, they are still unable to show dynamism, a point that will become relevant at a later point in our discussion.

(16) a. John sat down on the sofa to fiddle around with his phone.
      b. John stood up to receive the applause.
      c. John lied down to rest for a while.

Another attempt to comprehensively account for these verbs was undertaken by Maienborn (2005), who created a category labeled 'Davidsonian-states' which encompasses posture verbs along with other verbs such as *sleep*, *gleam*, and *wait*. The rationale behind this decision is again the contradictory behavior of posture verbs when a new set of diagnostic tests is applied. Maienborn builds an ontology of eventuality types distinguishing between Davidsonian eventualities and Kimian states. Kimian states (17) are found in stative verbs such as *love, hate,* and copular constructions (i.e., predicates in combination with a copular verb such as *be* in English or *ser* and *estar* in Spanish). In contrast, Davidsonian eventualities (18), typically include process verbs such as *play*, *flicker*, *flap*, and the class of Davidsonian stative verbs (what Dowty called *interval predicates*), along with others such as *sleep*, *gleam*, and *wait*.

(17)   *Kimian states* (Maienborn 2005:303)
        K-states are abstract objects for the exemplification of a property P at a holder x and a time t.

(18)   *Davidsonian eventualities* (Maienborn 2005:279)
        Eventualities are particular spatiotemporal entities with functionally integrated participants.

Building on the definition of Davidsonian eventuality, Maienborn devises a set of ontological properties and diagnostics to test for the presence of this type of eventuality in predicates. First, since Davidsonian eventualities are perceptible they should be acceptable as infinitival complements of perception verbs. Second, they can be located in space and time, so, they should be compatible with locative and temporal modifiers. Finally, since they can appear with argument participants, they should also be compatible with manner adverbials, instrumentals, and the like. The application of these diagnostics shows that posture verbs pattern with process verbs, and differ from statives, which in this proposal are subsumed under the Kimian state category (2005:283–297). As an example, consider the contrasts with perception reports in (19–22), which clearly set posture verbs apart from other stative predicates.

(19)   German: *Davidsonian-states* (Maienborn 2005:283–284)
        Ich sah Carol am   Fenster stehen.
        I   saw Carol at.the-DAT window stand
        'I saw Carol standing at the window.'

(20)   German: *copula and stage-level predicate*
        *Ich sah Carol müde sein.
        I   saw Carol tired be
        'I saw Carol being tired.'

(21)   German: copula and individual-level predicate
        *Ich sah Carol blond sein.
         I   saw Carol blond be
         'I saw Carol being blond.'

(22)   German: states
        *Ich sah die Tomate   1 Kg wiegen.
         I   saw the tomatoes 1 Kg weigh
         'I saw the tomatoes weighing 1 Kg.'

Nevertheless, even though posture verbs are different from stative verbs in perception reports, they still behave like other stative verbs in that they cannot be embedded in the phrase *"what happened was …"*, which is only acceptable with event predicates (23–25).

(23)   German: process verbs (Maienborn 2005:285)
        Das geschah   während Eva spielte Klavier.
        That happened while   Eva played piano
        'That happened while Eva was playing piano.'

(24)   German: Davidsonian-states
        *Das geschah   während Eva stand   am   Fenster.
         That happened while   Eva stood   at.the-DAT window
         'That happened while Eva was standing at the window.'

(25)   German: states
        *Das geschah   während Eva besaβ   ein Haus.
         That happened while   Eva owned   a   house
         'That happened while Eva was owning a house.'

This last diagnostic leads Maienborn to group posture verbs together with stative verbs and conclude that stative verbs must differ in terms of the entity they contain. Specifically, stative verbs feature a Kimian state, while posture verbs have a spatio-temporal unit in their denotation, just like process verbs, thus constituting in themselves the class of Davidsonian-states. Therefore, what sets Davidsonian-states apart from process verbs must be the size of the interval of which they are true: in other words, while process verbs require an interval to be truthfully predicated, Davidsonian-states, like any other type of stative verb, do not since they "hold at atomic times" (Maienborn 2005:285). Note that the view advocated by Maienborn opposes Dowty's account, for whom these verbs require an interval in order to be truthfully predicated. We will not dwell on this matter, but we would like to call attention to the fact that the equivalent Spanish stative construction with posture verbs uses the copula *estar* 'be' and a participle, so that, for example, *sit* in its stative meaning would be equivalent to *estar sentado* 'be seated' (26). If Maienborn's

proposal were correct, these predicates in Spanish, and other Romance languages, should be an instance of a Kimian state, that is, a property predicated of an object instead of a spatio-temporal unit, while English and German posture verbs would be an instance of a Davidsonian event. Furthermore, predicates such as *estar sentado* 'be seated and *estar enfermo* 'be ill' would contain different types of events: a Davidsonian event and a Kimian state, respectively, even though they both require the same copula (for further discussion, see Silvagni 2017).

(26)   Spanish
    a. *El   niño sienta en el   suelo.
       The child sits   on the floor
       'The child is sitting on the floor.'

    b. El   niño está sentado en el   suelo.
       The child is   sit-PTCP on   the floor
       'The child is sitting on the floor.'

Overall, the literature regards posture verbs as a hybrid combining features of both stative and eventive verbs: they are stative-like in that there is no dynamism or change involved in the situations they denote, but, at the same time, they seem to be event-like in that they can be predicated of a spatio-temporal unit, although they lack dynamism. This is where Silvagni's (2017) proposal for a new taxonomy of eventualities based on the notion of stage (cf. Carlson 1977; Kratzer 1995), rather than dynamicity, becomes essential. Silvagni draws a sharp line between events and states in terms of the presence or absence of a spatio-temporal point. States are merely properties over individuals, hence spatio-temporal notions are not relevant to them. In contrast, events are defined by the presence of a stage, or stages, as part of their internal constitution. A welcome consequence of the redefinition of eventualities based on the presence of a spatio-temporal unit is that dynamicity is considered an epiphenomenon of events rather than their defining property, thus departing from most accounts of internal aspect, which argue that dynamicity is the deciding feature of eventiveness (cf. Vendler 1957; Smith 1991; Rothstein 2004). When dynamicity is disregarded as the defining property of events, two main classes of eventualities arise, namely, states and events, which may be further subclassified as non-dynamic and dynamic (27).
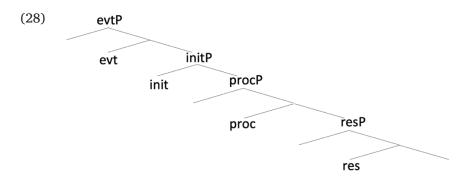
(27)   a.   States: *love, know, be yellow, be intelligent,* etc.
    b.   Events:
        i.   Non-dynamic events: *sit, lie, be ill, be tired, hang, smell,* etc.
        ii. Dynamic events: *wait, sleep, run, write, work, build, paint, clean, eat, sing,* etc.

In Silvagni's framework, because a lack of dynamicity does not preclude eventualities from being eventive, posture verbs are included in the event category instead of being classified as

states. Thus, posture verbs in their simple position sense would not be stative but rather non-dynamic event predicates, which explains why these verbs can appear with the progressive tense in English, are possible in perception reports, and pattern outside stative verbs in all other diagnostics.

Yet, these predicates can also behave like change of state verbs in that an initiating entity can bring about a change of posture in another entity or in itself. A change of state implies the existence of dynamicity in the event. This accords with Silvagni's definition of dynamicity, which obtains whenever a sequence of stages or spatio-temporal units is triggered by the action of an entity able to produce such an event. Whether the actant fulfills the action intentionally or unintentionally is not relevant; what is important is that the entity can generate such an event, since the property of being acted on belongs to events rather than to the actant. This property of events will be identified here with Ramchand's *init*P, which is available to those events liable to being caused or initiated (see Section 3). Events that include this node in their first phase syntax tree will then be interpreted as dynamic if there is a process head in the lexical entry of the verb root. In Section 4, we propose that posture verbs' assume position and causative meanings include an initP to add the initiating subevent that triggers the process subevent, leading to a result state in both meanings.

3 The framework: Ramchand's first phase syntax

In Ramchand's first phase syntax (2008; 2014; 2018), event and argument structure are mutually linked as the verb phrase (VP) is segmented into three phrases corresponding to the initiation, process, and result subevents. Each phrase has available a specifier position to lodge the entities serving as participants of the subevents, except for initP, whose participant appears as the specifier of the evtP, the head that introduces the subject of the predication. This information is codified in roots' type-A meaning, which instantiates structural meaning relevant to syntax and is used to create the articulated phrase structure. By contrast, type-B meaning encapsulates lexical conceptual meaning with no effect over syntax but ultimately relevant to the mind module as it spreads all over the syntactic structure, when the derivation is sent off to the conceptual-intentional interface. The number of projections is determined by the category labels included in the verb root's lexical entry, which is inserted into as many terminal nodes as category labels are specified. That is, terminal nodes may not necessarily be realized by a single verb root, but rather a lexical item may identify a terminal node or a chunk of structure in line with Nanosyntax's premises (Starke 2010; Caha 2019). Each category label corresponds to a subeventive projection identifying the subevents of the macro-event, namely, a causative subevent, a process subevent, and a result subevent, respectively (28).

(28)

```
              evtP
            ╱      ╲
          evt      initP
                 ╱      ╲
               init      procP
                       ╱      ╲
                     proc      resP
                             ╱      ╲
                           res
```

Like other theories of argument structure, Ramchand's first phase syntax presumes the introduction of an event variable along with the verbal head. The event variable may consist of several subevents, which together form a macro-event via the 'leads to' relation (29).

(29)   *Event Composition Rule*
        e = e1→e2 : e consists of two subevents, e1, e2 such that e1 causally implicates e2.

                                                        (Ramchand 2008:44, (5))

In Ramchand's framework, a process denotes an eventuality with internal change unlike states, which lack it. Only procP is assumed to contain an event variable, whereas initP and resP instantiate states (30).

(30)   a.   State (e): e is a state.
        b.   Process (e): e is an eventuality that contains internal change.

                                                        (Ramchand 2008:44, (6))

The interpretation of state subevents is contingent on its merging position; thus, the composition of argument structure is syntactically determined. Ramchand proposes two rules to determine its interpretation: if the state precedes the process subevent, then it will be interpreted as an initiation subevent (31); in contrast, if it follows the process subevent, it will be understood as instantiating a result subevent (32).

(31)   IF $\exists e_1, e_2$ [State(e_1) & Process(e_2) & $e_1 \rightarrow e_2$], then by definition Initiation (e_1).

(32)   IF $\exists e_1, e_2$ [State(e_1) & Process(e_2) & $e_2 \rightarrow e_1$], then by definition Result (e_1).

                                                        (Ramchand 2008:44)

This notwithstanding, we will assume Silvagni's (2017) redefinition of the notion of event in terms of the presence of a spatio-temporal unit, or stage, and discard dynamicity as a necessary property of events. This conception allows the existence of both non-dynamic and dynamic events, while states become properties of an entity, to which they apply regardless of spatio-temporal notions (see (27b) and (27a), respectively; repeated below as (33)).

(33)   a.   States: *love, know, be yellow, be intelligent,* etc.
       b.   Events:
            i.   Non-dynamic events: *sit, lie, be ill, be tired, hang, smell,* etc.
            ii.   Dynamic events: *wait, sleep, run, write, work, build, paint, clean, eat, sing,* etc.

Consequently, it is necessary to modify the denotation of the Ramchandian process as a subevent containing solely a spatio-temporal unit, which in the present terms constitutes an event. On the other hand, a distinction between initP and resP is drawn according to which only the former denotes a proper state of being the cause of the initiation of an event (i.e., a process), whereas the latter is regarded as an event, hence containing a spatio-temporal unit. Under these assumptions, dynamicity results from the concatenation of at least an initiation and a process head, or the combination of the process head with a scalar head, in other words, a result or a path phrase.[6] The latter possibility has already been discussed in Fábregas & Marín (2017), where they put forward a proposal which also endeavors to separate eventivity and dynamicity and which derives dynamicity from the type of complement selected by the process head in Ramchand's first phase syntax. Note that the changes introduced do not substantially modify Ramchand's event composition rules. The interpretation of two subevents in immediate vicinity follows from the previously stated rules, which resolve that a state subevent appearing before an event, or process head, is an initiation subevent (34), and that two consecutive events are interpreted as a process and a result subevent (35), each in order.

(34)   IF $\exists e_1, e_2$ [State(e_1) & Event(e_2) & $e_1 \rightarrow e_2$], then by definition Initiation (e_1).

(35)   IF $\exists e_1, e_2$ [Event(e_1) & Event(e_2) & $e_2 \rightarrow e_1$], then by definition Result (e_1).

Ramchand's theory also accounts for the possibility of having event participants as expressed by NPs, DPs, PPs, etc., and how they contribute to the composition and interpretation of the event. These elements may occupy the specifier or complement positions of the initiation, process, and result heads, thereby determining the interpretation of the entities as participants in the subevents. A predication relation is stablished between heads and their specifiers. A DP appearing in the specifier position of the result head will be interpreted as resultee, while if it appears in the specifier position of the process head, it will be interpreted as undergoer. The same reasoning follows for the interpretation of DPs in the specifier position of the initiation head in Ramchand (2008). This notwithstanding, following Harley (2013), Ramchand argues for the existence of a functional head evtP, hierarchically higher than initP, which merges with the resulting first phase syntax and whose specifier lodges the external argument of the predicate

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[6] Such events are instantiated by unaccusative verbs such as *break* or *tear*. In this case, dynamicity stems from the succession of two consecutive spatio-temporal stages, which are realized by proc and res.

(see Kratzer 1996; Alexiadou, Anagnostopoulou & Schäfer 2006; Pylkkänen 2008, among others). The entity occupying the specifier position of this head may take up this position via external or internal merge. evtP also closes the first phase syntax and deploys its content to denote a property of events (see Ramchand 2018 for further discussion).[7] Importantly, evtP is independent of the init head, introducing the causative semantics in the first phase syntax. It is the causative head that legitimizes the introduction of an initiator in the external argument position, that is, an entity whose inherent properties allow it to generate the event regardless of intentionality. The subevent introduced by the initiation head is characterized as a state, in other words, an eventuality without internal change. The denotation corresponding to each subeventive head along with the instructions for interpreting each DP in the corresponding specifier position, regardless of the verb, is detailed in (36–38).

(36) $[\![res]\!] = \lambda P \lambda x \lambda e \ [P(e) \ \& \ res'(e) \ \& \ Event(e) \ \& \ Subject(x,e)]$

(37) $[\![proc]\!] = \lambda P \lambda x \lambda e \ \exists e_1, e_2 \ [P(e_2) \ \& \ proc'(e_1) \ \& \ Event(e_1) \ \& \ e = (e_1 \rightarrow e_2) \ \& \ Subject(x,e_1)]$

(38) $[\![init]\!] = \lambda P \lambda x \lambda e \ \exists e_1, e_2 \ [P(e_2) \ \& \ init'(e_1) \ \& \ State(e_1) \ \& \ e = (e_1 \rightarrow e_2) \ \& \ Subject(x,e_1)]$

Ramchand (2014) considers that cross-linguistic variation should encompass exclusively type-A meaning, that is, information that is structurally relevant for the first phase syntax of verbs. Among the meaning components included in the repository of type-A meanings, Ramchand includes scalar change, understood as the expression of incrementality, path of motion, and property change, which appear as complements of procP or as result phrases. Assuming the widely held view that languages differ in terms of the possibility of instantiating a path, or result, in motion and property change events by means of an element independent of the verb (Mateu 2002; Acedo Matellán 2010; Folli & Harley 2020), satellite-framed languages like English will allow the possibility of instantiating the res head of the first phase syntax by means of a satellite (or a verb root, if a given root encodes that type of meaning), whereas verb-framed languages such as Spanish will only be able to instantiate the path, or result, via the verb root merged in the result head of the VP and no other element will be available to provide this type of meaning.

   In conclusion, when posture verbs denote a dynamic kind of event, they should minimally contain an initP and procP in their phase syntax, to which a resP should be added to denote the result state deriving from the change of state. In Section 4, we further motivate this assumption by drawing on cross-linguistic causation and path encoding patterns.

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[7] Note that Ramchand's (2018) designation of an event phrase to delimit the contour of the event in the syntactic structure has also been proposed by other linguists (see Borer 2005; Travis 2010).

4 Causation and path encoding

In Section 1.1 we put forward two reasons for the differences in the properties of posture verbs in English compared English with other languages. First, English uses a labile strategy to encode causation, that is, it employs the same verb root for causative and inchoative structures with no morphological difference between them, whereas the other Germanic languages mentioned here, as well as all Romance languages, mainly follow the anticausative pattern whereby the assume position meaning is created by means of a reflexive pronoun (see Table 1). Second, languages may encode path information either in the verb root or by means of a satellite independently from the verb. These differences translate into two patterns that posture verbs may exhibit: either a complex first phase syntax consisting of initP, procP, and resP, or a simple one comprising a procP. This section will deal with each of these patterns in turn.

From a cross-linguistic point of view, variation in the expression of causativity is commonplace. Languages vary in the way they mark the relationship between inchoative and causative verb pairs that share the same meaning. This idea is found in Haspelmath (1993), who thinks of an inchoative/causative verb pair as essentially expressing the same change of state but diverging in that the causative form contains information about the causer, while the inchoative lacks it suggesting that the event occurs spontaneously. Whether a situation can be conceptualized as occurring spontaneously determines the existence of an inchoative version of a causative verb. Based on this idea, Haspelmath (1993) proposes a three-way typology of languages to account for the variation in causativity expression. Languages can use a causative, anticausative, and/or non-directed alternation strategy. In causative and anticausative languages one of the verbs is marked as basic and the other one is marked as derived, as we see in posture verbs in Romance languages and some Germanic languages, whereas in non-directed alternation strategy languages like English there is no such derivational relationship between inchoative/causative verb pairs. Note that it is possible for one language to include inchoative/causative verb pairs of different classes. Thus, the typology could be seen as based on tendencies that languages follow while still allowing for other possibilities to express causativity.

This is the approach adopted by Alexiadou, Anagnostopoulou & Schäfer (2006; 2015), who propose a three-way typology of anticausatives based on Greek data. Type A includes anticausatives that are morphologically marked, which in the case of Greek is achieved by means of non-active morphology (39). This class would also include anticausatives marked with a reflexive pronoun, as in Romance languages or German. Type B groups together all unmarked anticausatives (40), which in Greek appear with active morphology. Finally, Type C (41) admits both possibilities: in other words, this class is characterized by the optionality of the marking.

(39) Greek (Alexiadou, Anagnostopoulou & Schäfer 2015:63–64)

    a. O Janis   ekapse   ti supa.
       the John-NOM burnt-ACT the soup-ACC
       'John burnt the soup.'

    b. I supa   kaike.
       the soup-NOM burnt-NACT
       'The soup burnt.'

(40) a. O Janis   adiase   ti sakula.
       the John-NOM emptied-ACT the bag-ACC
       'John emptied the bag.'

    b. I sakula   adiase.
       the bag-NOM emptied-ACT
       'The bag emptied.'

    c. I sakula   adiastike   apo to Jani.
       the bag-NOM emptied-NACT from the John
       'The bag was emptied by John.'

(41) a. O Janis   lerose   to trapezomandilo.
       the John-NOM dirtied-ACT the tablecloth-ACC
       'John dirtied the tablecloth.'

    b. To trapezomandilo lerose   / lerothike.
       the tablecloth-NOM dirtied-ACT / dirtied-NACT
       'The tablecloth got dirty.'

To determine whether an inchoative/causative verb pair will be morphologically marked, these authors resort to Haspelmath's "scale of increasing likelihood of spontaneous occurrence" (1993:105), which is the likelihood that a situation can occur spontaneously without the involvement of an acting entity. The rationale behind this is that situations that are less likely to occur spontaneously should have marked inchoative forms, while situations that tend to occur spontaneously should have unmarked inchoative forms or optionally marked ones. Although this reasoning may help explain the inchoative/causative verb pairs in their sample, we argue that this is a simplification, which does not encompass all the possibilities languages encode. The spontaneity of an action cannot be the only relevant factor. In Spanish, for example, a reflexive clitic pronoun can accompany posture verbs and, at the same time, express a "high degree of involvement" on the part of the entity initiating the event. Thus, the presence of a reflexive clitic pronoun cannot be said to solely mark the absence of a causer, or spontaneity, when some events require the existence of an undergoer in the conceptualization of the event. To test the

non-spontaneous behavior of posture verbs, consider the acceptability of these verbs (42) with adverbial complements such as *deliberately* or *in order to,* which should be incompatible with anticausative predicates (Levin & Rappaport Hovav 1995; Mendikoetxea 1999; Chierchia 2004; Alexiadou, Anagnostopoulou & Schäfer 2015, among others). This fact will be reflected in the proposed lexical entry for these verbs.

(42) Spanish
El niño se sentó en el suelo deliberadamente/ para descansar.
The child REFL sat.down on the floor deliberately/ in.order.to rest
'The child sat down on the floor deliberately/ to rest.'

The data in Table 1 shows that posture verbs in Romance languages (Spanish, Catalan, and French) and Germanic languages (Swedish, German, and Icelandic) tend to follow the anticausative alternation. In stark contrast, English adopts the labile alternation, a non-directed alternation type. As to why this might be so, one can assume that each language's lexical inventory and its availability of pronouns and verb roots will constrain the adoption of one pattern or another. In other words, the availability of anticausativizing strategies might be contingent on the existence of reflexive pronouns or voice morphology in a language. In this connection, it is pertinent to call attention to studies that address the issue of productivity resulting from satellite-framedness such as Berthele (2004; 2013), Berthele et al. (2015), and Lewandowski & Mateu (2016). On the other hand, each language's preferred strategy to encode causativity will have a bearing on the type-A information codified in verbs, which can be attested in the properties of posture verbs (see (5) and (6); repeated below as (43) and (44)).

(43) Causative sense in English and Spanish
    a. I sat the child *(on the chair).
    b. I sat the child down (on the chair).
    c. Yo senté al niño (en la silla).
        I sat DOM.the child on the chair
        'I sat the child on the chair.'

(44) Assume position sense in English and Spanish
    a. The child sat *(on the chair).
    b. The child sat down (on the chair).
    c. El niño se sentó (en la silla).
        the child REFL sat.down on the chair
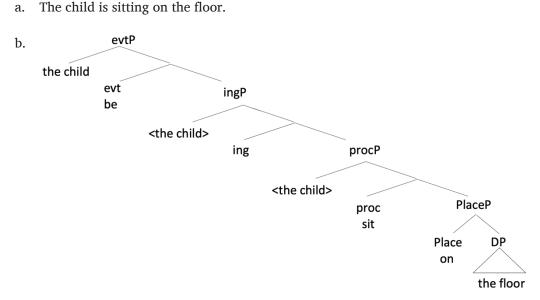   'The child sat down.'

Following Ramchand (2008), we adopt a causativization approach for English based on a null init head that is merged on top of the structure to introduce the initiational subevent and bring about the process subevent. For a verb to causativize, init cannot be specified in the lexical

entry of the verb, thus the lexical entry for English posture verbs (45) reflects the observations made above: to wit, due to its labile nature, the construction of the causative forms will require the insertion of a null init head in the first phase syntax, as the verb root by itself only contains a process label. It will be recalled that we redefined the process head using Silvagni's (2017) conception of eventivity as the existence of a spatio-temporal unit in the denotation of the event. Consequently, the lexical entry specifies that the event denoted by the posture verb *sit* is a non-dynamic one.

(45)   a.   *sit*: [proc]
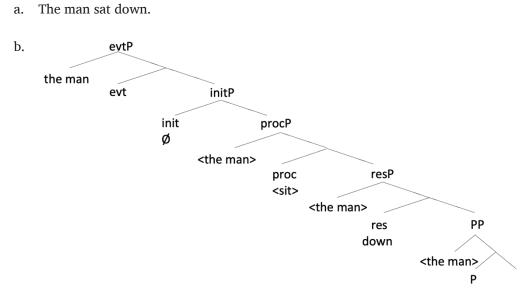   b.   [[sit]] =   < sit, <proc>, $\lambda e \lambda eproc[e = eproc \wedge sit(eproc)]$ >

Therefore, it is not surprising that a productive way to express non-dynamic meanings with process posture verbs in English is the progressive (46). We assume with Ramchand that *-ing* morphology is "a function from event descriptions to event descriptions such that the derived eventuality is an Identifying-State for that event" (2018:61). The *-ing* morphology can take scope over the event and output a non-dynamic description, allowing speakers to infer "the existence of a more complex extended eventuality in practice, given the right conditions" (2018:62). The resulting structure would have as holder of the state the DP in the highest specifier position of the first phase syntax. The DP would be raised to the specifier position of evtP, which would in turn be spelled out as the auxiliary *be* (Ramchand 2018), that is, as the materialization of the tense, aspect, and evt nodes.

(46)   Simple position meaning in English
        a.   The child is sitting on the floor.
        b.

To express autocausative meanings, English can leverage its satellite-framedness, which makes it possible to codify the path independently from the verb via a satellite. A dynamic event of sitting, for example, will only be possible with the introduction of an init head in the syntax (47). English, being a satellite-framed language, can express the path via a satellite. This is the situation with the assume position meaning in English, which employs satellites such as *down* or *up* to express the path of motion. These particles add a result-state subevent to the first phase syntax in (45). By adopting Ramchand's (2008) *result augmentation* operation we can account for the properties of the argument structure resulting from the combination of a pure process (posture) verb and a particle. The verb meaning is built compositionally by the addition of a small-clause (SC) structure containing the particle, which can further identify the *res* head in the verbal ensemble, as it is lexically specified with a *res* feature and allows the presence of a subject.

(47)   Assume position meaning in English
         a.   The man sat down.

         b.

The characteristic pattern displayed by Romance languages and Germanic languages such as Swedish or German is reflected in (48), exemplified with *sentar* 'sit' in Spanish. The verb root encodes all three category labels: init, proc, and res, in line with its adherence to the anticausative pattern and its verb-framed nature. At the same time, these languages also have verb roots that obey the characteristic English pattern (45) in verbs such as Fr. *gésir* 'lie', Cat. *jeure* 'lie', Sp. *yacer* 'lie' (see Table 1).[8]

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[8] Note that English also has transitive posture verbs such as *seat* or *lay*, which instantiate the pattern represented in (48). See Gómez Vázquez (2020) for further discussion.
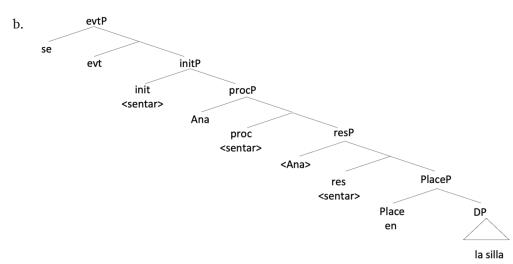
(48) a. *sentar*: [init, proc$_i$, res$_i$]

b. [[sentar]] = < sentar,<init,proc$_i$,res$_i$>,$\lambda e \lambda e_{init} \lambda e_{proc} \lambda e_{res}$[e = e$_{init}$→[e$_{proc}$→e$_{res}$ ∧ sentar(e$_{init}$) ∧ sentar(e$_{proc}$) ∧ sentar(e$_{res}$)] >

The lexical entry proposed for Spanish *sentar* 'sit' in (48) yields a syntactic structure consisting of an initP, procP, and resP in both the assume position and the causative meaning. Note that the intransitive posture verb *sit* (45a) denotes a process whose participant can only be the undergoer of the event given that the lexical entry contains no information about the initiator of the event. By contrast, the lexical entry for *sentar* 'sit' (48a) specifies that this verb contains the category labels init, proc, and res, hence the subject is not only the undergoer and resultee of the event, but also the initiator in the assume position meaning. We would argue that the assume position sense and the causative sense differ fundamentally in the fact that the former contains two DPs that refer necessarily to the same entity, since this element is simultaneously initiator, undergoer, and resultee of the event (50) (cf. (42); repeated below as (49)). By contrast, in the causative meaning (51), the DPs possess disjoint reference: one of the arguments plays the role of initiator and the other argument assumes the roles of undergoer and resultee. Therefore, the two argument structures are identical except for the elements lodged at Spec,evtP.

(49) Spanish

El niño se sentó en el suelo deliberadamente/ para descansar.
The child REFL sat.down on the floor deliberately/ in.order.to rest
'The child sat down on the floor deliberately/ to rest.'

(50) Assume position meaning in Spanish

a. Ana se sentó en la silla.
Ana REFL sat.down on the chair
'Ana sat down on the chair.'

b.

(51)   Causative meaning in Spanish
    a.   Ana sentó al   niño.
        Ana sat   DOM.the child
        'Ana sat the child.'

    b.

```
                    evtP
               ┌─────┴─────┐
             Ana          ┌─┴────────┐
                         evt       initP
                        sentar   ┌───┴──────┐
                                init       procP
                              <sentar>   ┌───┴──────────┐
                                      el niño        ┌──┴──────────┐
                                                    proc          resP
                                                  <sentar>   ┌─────┴────────┐
                                                          <el niño>      ┌──┴────────┐
                                                                        res
                                                                     <sentar>
```

In (50), the function of the clitic is that of a position filler; specifically, it fills spec,evtP. On the one hand, it satisfies the requirement of initP to have a DP that assumes the role of initiator; on the other hand, its reference is determined to be identical with the reference-bearing DP below in the argument structure. We follow Pujalte & Saab (2012) and assume that if a transitive verb with a D feature lacks a specifier in the external argument position, it will lead to a crash in the PF branch, since the verb's selectional requirements would not be met. To repair the absence of a DP in the syntax, the clitic is inserted post-syntactically as a last-resort repair strategy in the PF branch to meet the D feature requirement of the head. The clitic that appears in this construction has expletive-like characteristics, since it enters the derivation with unvalued phi features that are later valued against a full-fledged DP in the structure through a probe-goal relation.

The existence of a result state in the lexical entry of Spanish posture verbs can be confirmed with the assume position meaning of these verbs (52), where the temporal complement *durante una hora* 'for an hour' is ambiguous between two readings: a result state-related interpretation and an eventuality-related interpretation. The first interpretation of the adverbial measures the length of the result state, whereas the second one indicates for how long the event was repeated (Piñón 1999). In the result state-related interpretation, these sentences could be paraphrased as 'Elisa {sat down on the chair/lay down on the sofa} and stayed in this state for an hour'.

(52)   Spanish
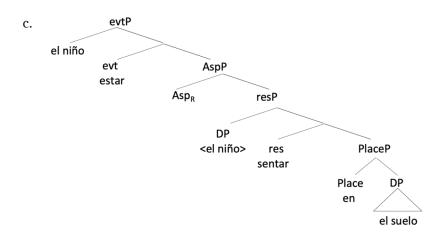   a.   Elisa se   sentó   (en la silla) durante una hora.
        Elisa REFL sat.down on the chair for   an   hour
        'Elisa sat down on the chair for an hour.'

  b. Elisa se acostó (en el sofá) durante una hora.
    Elisa REFL lay.down on the sofa for   an hour
    'Elisa lay down on the sofa for an hour.'

As to the simple position meaning in Spanish, we noted above that Romance languages do not have available as many process verbs denoting posture as do English and other Germanic languages. The way in which the simple position meaning is expressed with posture verbs following the pattern in (48) in Spanish, and similarly in other Romance languages, is via an auxiliary (*estar* 'be' in Spanish) and the result participle of the posture verb (see (3) and (4), repeated below as (53) and (54)). The lexical restrictions that apply can be explained with reference to the proposed lexical entry for posture verbs in Spanish (48), which entails initiation, process, and result subevents. The posture verb *sentar* 'sit' contains all three subevent components, thus precluding the possibility of its expressing a state. This explains why we can only obtain a non-dynamic meaning out of this verb through the resultative construction with the copula *estar* 'be' (54b). We assume with Ramchand (2018) that the participle instantiates the result subevent of the verb, thereby allowing a non-dynamic interpretation of the verb root (55b).[9]

(53) The child sits on the floor.

(54) Spanish
  a. * El niño sienta en el suelo.
    The child sits on the floor
    'The child is sitting on the floor.'

  b. El niño está sentado en el suelo.
    The child is sit-PTCP on the floor
    'The child is sitting on the floor.'

(55) Simple position meaning in Spanish
  a. El niño está sentado en el suelo.
    the child is sit-PTCP on the floor
    'The child is sitting.'

  b. [[sentado]] = < sentado, < res >, λe [sentado$_{res}$(e)] >

---

[9] Following Embick (2004), we assume the presence of an AspP above the verbal resP, containing the posture verb root (55). Specifically, the AspP would contain an Asp$_R$ head, which takes the result state to be the direct consequence of a previous event.

c.

```
                    evtP
          ┌──────────┴──────────┐
       el niño                   │
                    ┌────────────┴────────┐
                   evt                   AspP
                  estar        ┌──────────┴──────────┐
                             Asp_R                   resP
                               ┌───────────┬──────────┐
                              DP          res        PlaceP
                          <el niño>      sentar    ┌────┴────┐
                                                 Place      DP
                                                  en        △
                                                          el suelo
```

In conclusion, posture verbs may be associated with two possible structures: a complex first phase syntax consisting of initiation, process, and result phrases, and a simple one comprising a single process phrase. Thus, to express stationary motion with posture verbs instantiating the complex version as is the case with Spanish *sentar* 'sit', the posture verb's participle, which codifies the result subevent, is used along with the copula *estar* 'be'. By contrast, if a posture verb instantiates the simple version, containing only a process subevent, a non-dynamic type of event is immediately obtained since it simply denotes a spatio-temporal stage. In Section 5, we show how posture verbs associated with the simple lexical entry can develop into copulas when the lexical meaning pertaining to the manner of posture disappears.

5 Copular and co-event uses of posture verbs

In Section 1.3 we hinted at the existence of two stable versions of posture verbs: a full-fledged lexical version and a copular one. Talmy (2000) put forward the idea that posture verbs introduce a manner co-event, referring to the posture or disposition of the figure, along with information about its location. This view of posture verbs would correspond to the full-fledged lexical version, a name which brings to the fore the entwining of both type-A and type-B meaning in the verb root (56). This use of posture verbs contrasts with the copular one, which is bereft of manner information and simply locates the figure in space (57).

(56) a. He was lying on the couch.
      b. She was sitting on the sofa.
      c. They were standing on the corner.
      d. The clothes were hanging on the line.

(57) a. The problem lies in the fact that S.
      b. The operator is sitting in SpecCP.
      c. Water keeps standing in the basin.
      d. It is hanging in the balance.   (Den Dikken 2010: 49,(46))

Under the assumption that posture verbs can express a manner co-event, it should be possible to paraphrase them by expressing the manner independently from the verb root, thus permitting the separation of the stative-locative meaning from the manner component specifying the posture, a prediction which is borne out (58–59).

(58)   a.   The lamp {stood/lay/leaned} on the table.

        b.   The lamp is {standing/lying/leaning} on the table.   (Talmy 2000:27, (5))

(59)   German

        a.   Heidi liegt auf dem Sofa.

              Heidi lies on the sofa

              'Heidi is lying on the sofa.'

        b.   Heidi ist liegenderweise auf dem Sofa.

              Heidi is lying.way-ADV on the sofa

              'Heidi is lying on the sofa.'

                     (Maienbon 2003: 86, (60) *apud* Rothmayr 2009: 150, (374))

Clearly, these sentences are altogether impossible in Romance languages such as Spanish, which can only make use of a participle and the copula *estar* 'be' to express a meaning like that of the Germanic structures (60).

(60)   Spanish

        La   lámpara está en la   mesa {levantada/tumbada/inclinada}.

        The lamp   is   on the table stand-PTCP/lie-PTCP/lean-PTCP

        'The lamp is standing/lying/leaning on the table.'

This apparent deficiency in Romance languages' posture verbs is due to lexical availability rather than to the absence or unavailability of an operation in the syntax or semantics to conflate a manner component and a non-dynamic event. Indeed, Romance languages also have a (somewhat limited) number of non-dynamic posture verbs (61–63).

(61)   French

        Les soldats morts   gisaient sur le champ de bataille.

        the soldiers dead-PL lay   on the field   of battle

        'The dead soldiers lay on the battlefield.'

(62)   Catalan

        El gos jeu a l'ombra   d'un arbre.

        the dog lies at the-shadow of-a tree

        'The dog lies in the shade of a tree.'

(63)   Spanish

        La muchacha yacía desmayada en el   suelo.

        the girl   lay   unconscious on the floor
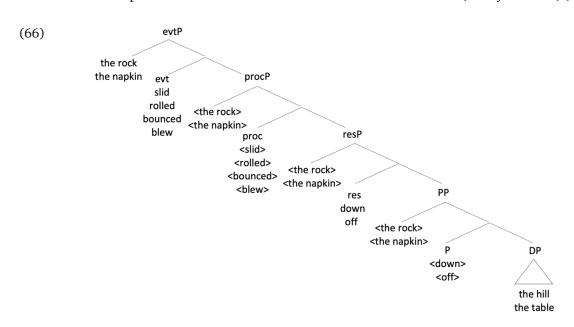
        'The girl lay unconscious on the floor.'

In Den Dikken's (2010) analysis, the copular use of posture verbs presumes that the verb instantiates a stative aspectual operator *be* (64a), which is also present in the full-fledged lexical version along with a manner component adjoined to it (64b), an intuition which we think goes in the right direction. However, there are certain implications that need to be considered if we are operating under the assumption that verb roots instantiate different sub-eventive verbal phrases, as we have by adopting Ramchand's framework.

(64)   a.   be [$_{sc\,=\,rp}$ DP [relator [$_{pred\,=\,pp}$ P$_{loc}$ DP]]]
        b.   be + manner [$_{sc\,=\,rp}$ DP [relator [$_{pred\,=\,pp}$ P$_{loc}$ DP]]]   (Den Dikken 2010:49, (47))

To deal with co-events in Ramchand's framework we assume that a verb, realizing at least a process head, may take an additional element, independent from the verb root, to express a result subevent, thus, creating a more complex event. The result obtained mimics the co-event semantics argued for in Talmy (1991; 2000). The framing event would correspond to the bare first phase syntax, to which a co-event may be related by the existence of at least two roots with the relevant category labels instantiating process and result. The so-called manner meaning arises in the conceptual interface as the root contributes its conceptual meaning, or type-B meaning, which is linked to the spatio-temporal unit introduced by the process head. Thus, the relevant distinction between verb-framed and satellite-framed languages is the locus of the lexicalization of the path information, that is, whether the res head is instantiated by a verb root or satellite. The sequences in (65, 66) are clear examples of co-event conflation of a manner or cause event (*slide, roll, bounce,* or *blow*) and a result subevent, instantiating a path (*down* and *off*).

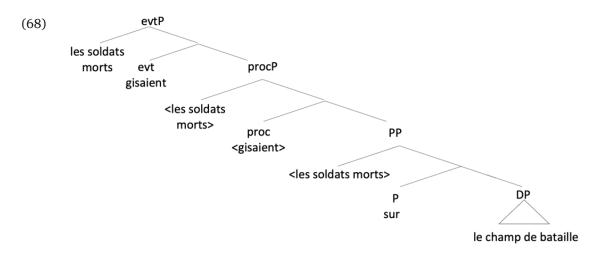(65)   a.   The rock slid/rolled/bounced down the hill.
        b.   The napkin blew off the table.   (Talmy 2000:28, (5))

(66)

As for posture verbs expressing the simple position meaning, they cannot be regarded as equivalent to the examples of co-event presented above. Essentially, they merely consist of a manner component codifying the figure's posture and a location without resultative semantics. The existence of a co-event is based on the availability of at least two subevents, a main subevent of cause or manner of motion and a secondary subevent of path of motion, which put together constitute a macro-event. Following Ramchand (2008), we would argue that the locational phrase that appears along with these verbs is an instance of a rhematic-PP, in which the figure is merged in the specifier position, thus creating a predicational structure without the implication of a secondary subevent (see (55), repeated below as (67), and (68)). Assuming the existence of a result state in this construction is counterintuitive since there is not necessarily a previous action of *laying* that triggers a result subevent. These sequences simply denote a state of location that includes the disposition of the figure with respect to the ground according to parameters of posture and spatial coordinates. The analysis we propose is based on previous work by Hoekstra & Mulder (1990), who argue for an unaccusative analysis of some uses of unergative verbs, where the surface subject is in fact the subject of a SC in complement position, which we discuss in the following section.

(67) French
      Les soldats morts   gisaient sur le   champ de bataille.
      the soldiers dead-PL lay   on the field   of battle
      'The dead soldiers lay on the battle field.'

(68)

5.1 The small-clause complement analysis

Hoekstra & Mulder (1990) propose a SC as complement for motion verbs, posture verbs, and *swarm*-type verbs that appear with locational phrases in Dutch. These verbs are argued to behave as unergative in their by-default configuration with an external argument. The way

in which the lexical meaning of these verbs is deployed in the syntax turns them into *copular expressions* rather than full-fledged lexical verbs. In their terms, a copular verb, such as *be, stay,* or *remain* in English, is one that selects a SC as its complement and cannot project a specifier to lodge an external argument (69). The subject noun phrase (NP) of the SC is not a true argument of the verb, but it can raise from this position to satisfy the sentence's requirement to have a subject, thus triggering the movement of the NP to Spec,IP to receive nominative case (70).

(69)   NP   V $\leftrightarrow$ V [$_{SC}$ NP PRED]   (Hoekstra & Mulder 1990:3, (1))

(70)   NP$_i$ INFL   [$_{vp}$ V [$_{SC}$ t$_i$ PP]]   (Hoekstra & Mulder 1990:4, (5))

The derived nature of the surface and the presence of a SC complement subject with posture verbs in Dutch can be confirmed via the PP's position with respect to the verb's and the types of subject entities that can appear in this configuration. In Dutch, a good indicator of the adjunct status of PPs is the fact that they can be omitted, moved, or separated from the verb (see Hoekstra & Mulder 1990). In the adjunct interpretation (71a,b), the PP can appear either before or after the verb, and both elements can receive stress. By contrast, in the argument interpretation (71c,d), in which the NP selected by the preposition receives stress, the PP must appear before the verb. The availability of an argument interpretation for the PP (71c,d) confirms the existence of a SC-clause for posture verbs.

(71)   a.   dat de ooievaar in de SLOOT STAAT
               that the stork   in the ditch   stands
               'that the stork is standing in the ditch'

        b.   dat the ooievaar STAAT in de SLOOT
               that the stork   stands in the ditch
               'that the stork is standing in the ditch'

        c.   dat de ooievaar in de SLOOT staat
               that the stork   in the ditch   stands
               'that the stork is standing in the ditch'

        d.   dat the ooievaar *staat   in de SLOOT
               that the stork   stands in the ditch
               'that the stork is standing in the ditch'

                                                          (Hoekstra & Mulder 1990:13, (23))

Hoekstra & Mulder argue that this ambiguity is not always at play and that posture verbs can co-occur unambiguously with a SC, where the PP would necessarily be an argument (72,73). In

these examples, the PP's argument status explains both its obligatory pre-verbal position (72) and its inomissibility (73).[10]

(72) a. dat de humor op#   straat ligt/*ligt op#   straat
     that the humor on-the street lies/ lies on-the street

    b. dat er   fouten   in de tekst zitten/*zitten in de tekst
     that there mistakes in the text sit/   sit   in the tekst

    c. dat dat nieuws in de krant   stond/*stond in de krant
     that that news   in the newspaper stood/ stood in the newspaper

(73) a. Een ooievaar kan staan.
     a   stork   can stand

    b. *Fouten   kunnen staan.
     mistakes can   stand

    c. *Humor kan liggen.
     humor may lie   (Hoekstra & Mulder 1990:13, (24–25))

Hoekstra & Mulder suggest that the obligatoriness of the SC complement in (73) is explained by the fact that the surface subjects are not selected by the verb, but rather are raised from the specifier position of the SC given that the verb imposes no lexical restrictions (see also Mulder & Wehrmann 1989). However, note that in these examples the omission of the PP does not make all sequences ungrammatical. While in (73a) the subject is an animate entity, in (73b,c) the elements appearing as subject are abstract nouns with no physical dimensions. Consequently, the absence of the PP specifying the location leaves out essential information about the predicate if we assume that the verb's type-B meaning falls short in these examples, where the subjects are abstract entities. We propose that this apparent exception (73a) can be accommodated by assuming that the subject entity is an animate participant exerting control over the situation and, thus, the first phase syntax should include an initP, while with inanimate objects the first phase syntax could only contain a procP.

    To summarize, following the insightful analysis by Hoekstra & Mulder (1990), we have shown that posture verbs in their simple position sense contain a procP and a rhematic-PP. The existence of a non-eventive predicational structure can account for the meaning of this sense in

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[10] Note that in these examples the figure argument does not seem to be the element whose properties are determining the choice of posture verb, but rather it is the ground argument whose properties are relevant; in other words, it is *the street, the text,* and *the newspaper* that seem to be responsible for it (see Ameka & Levinson (2007)).

the co-event and copular use. The use of posture verbs as copulas in English is addressed in the following sections.

5.2 Copular uses of posture verbs

After Butt & Lahiri (2013), Ramchand (2014) presents the idea that, because of a stable kind of (verbal) polysemy, a verb may have two versions, a full-fledged lexical version and a light one. These forms can be differentiated in terms of the amount of semantic information each contains (Ramchand 2014): full-fledged lexical verbs instantiate type-A and type-B meaning, whereas light verbs exclusively contain type-A meaning.[11] The existence of a common source for main and light verbs explains why these concurrent elements share the same phonetic form. As to the semantic content provided by 'light' verbs, it is mainly related to event semantics such as causation or the existence of result states, as well as the legitimization of additional event participants such as benefactives or the inclusion of distinctions such as agentive or accidental, also present in the full-fledged form (Ramchand 2014), which is why light verbs are dependent on the presence of a *predicative element* (Butt & Lahiri 2013).

In the case of posture verbs in the simple position meaning, the 'light' verb use is equivalent to copulas, as they contribute to the meaning of predicates not only as linkers between the figure and the ground, but also as aspectual markers of unboundedness or durativity (i.e, type-A meaning) in that they also provide a spatio-temporal unit to the verb's first phase syntax, which consists simply of a process head and a rhematic PP, thereby conferring on it a non-dynamic event semantics. The diagram in **Figure 1** schematizes both the localizing function of the simple position meaning by means of a rhematic PP and the unboundedness of the event denoted by the process head. The procedure whereby process posture verbs become 'light', that is, copulas (or auxiliaries over time), is an instance of copularization (Hengeveld 1992), or grammaticalization.[12] During the copularization, which may involve several stages, the posture verb may take on different complements and fulfill as many different functions (see Kuteva 1999).

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[11] There is also another possible form, auxiliaries, which are devoid of both type-A and type-B meaning. Light verbs and auxiliary verbs should be kept separate due to the latter's non-existent semantic and conceptual content and their purely functional role. This is, for example, the case of the auxiliary *be* in English, which instantiates the event, tense, and aspect nodes (Ramchand 2018).

[12] The term grammaticalization should be understood here as "a process whereby lexical items lose phonological weight and semantic specificity and gain grammatical functions" (Van Gelderen 2009: 232). Note that the view espoused by Van Gelderen (2009) regarding the grammaticalization process of auxiliaries is substantially different from that put forward by Butt and Lahiri (2013). See Kuteva (1999), Bowern (2008), and Camilleri & Sadler (2017), among others, for further discussion on the direction of the grammaticalization process for these elements.
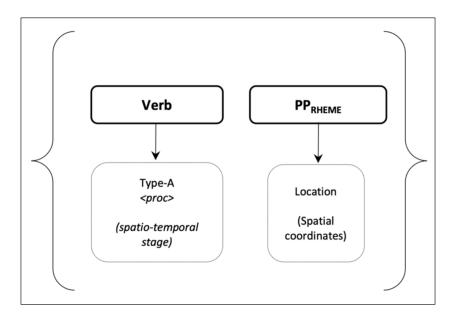
Figure 1: Stationary motion with posture verbs.

A paradigmatic case of copularization involving a posture verb is that undergone by the Latin process posture verb *stare* 'stand' (74) as it evolved into Spanish *estar* 'be' (Hengeveld 1992). This verb's path of change involved several stages. In the first stage, the lexical verb began to be used with locative phrases, proof of the verb's new function as a *localizing copula*. Next, the verb's combinatorial possibilities expanded beyond locative phrases and began to include adjectives and nouns. Finally, in the last stage (contemporary Spanish), the posture verb, already acting as a copula, can also be used to express possession (see Batllori & Roca 2011).

(74)   V   → $(x_i)_{Loc}$ > A > N > $(x_i)_{Poss}$ (Hengeveld 1992:246)

A number of similar stages can be identified in the copularization of English *remain*, for which Van Gelderen (2015) provides the relevant moments of the reanalysis from its original meaning of 'stay with' (75) to its reanalysis as a copula, where it can appear with a complement such as a PP (76). The copularization process usually begins with the loss of part of the verb's specificity. In the case at hand, *remain* lost its location and duration meaning, which would pave the way for its subsequent reanalysis as a copula.

(75)   To the part of this endenture **remaynand** to the forsaid Alexander.
       'To the part of this agreement remaining to Alexander, mentioned before.'

(76)   Those lordes of her honorable kinne, which as yet **remained** vnder arrest
       should vpon the matter examined, do wel ynough.
       'Those lords of her honorable family, who as yet remain under arrest, should do well
       enough upon the matter being examined.'

(Van Gelderen 2015:294–295)

Among the reasons contributing to its reanalysis, Van Gelderen mentions: the presence on closer proximity of a secondary predicate, which could be reanalyzed as its complement (77); the existence of ambiguity as to whether the element following the verb is to be interpreted as an argument or an adjunct (78); and ambiguity as to whether the adjective accompanying the verb is modifying the verb or the subject (79).

(77)   The Factour with the others did **remaine** prisoners.
       'The perpetrator with the others remained, prisoners.'

(78)   I am yor bedman and so shall **remayn** be the grace of God all the days of myn liff.
       'I am your servant and so shall remain (i) by the grace of God, for all the days of my life.'

(79)   Since which she was removed to Kimbolton, where she **remains** now sick.
       'Since when she was removed to Kimbolton, where she now remains sick.'

(Van Gelderen 2015:295–296)

Returning to English posture verbs, the 'light' verb use has acquired impoverished semantics, since it does not necessarily imply a physical posture meaning and admits both inanimate and abstract figures (see (50) and (51); repeated below as (80) and (81)). Nevertheless, as shown in the preceding sections, it still applies lexical restrictions on the figure to a certain extent (see (10); repeated below as (82)). Similarly, in Dutch the posture verb *zitten* 'sit' seems to have lost its lexical meaning, realizing now the functions of a stage-level copula (see (11a,b), repeated below as (83a,b)).

(80)   a.   He was lying on the couch.
       b.   She was sitting on the sofa.
       c.   They were standing on the corner.
       d.   The clothes were hanging on the line.

(81)   a.   The problem lies in the fact that S.
       b.   The operator is sitting in SpecCP.
       c.   Water keeps standing in the basin.
       d.   It is hanging in the balance.   (Den Dikken 2010: 49,(46))

(82)   a.   *Stand*: when long axis is canonically vertical.
      b.   *Lie*: when long axis is canonically horizontal.
      c.   *Sit*: when there is no major axis, or object has a wide base in canonical position.
      d.   *Hang*: when not supported from below.

(83)   a.   Jan   zit   op   de   bank.
          Jan   sit-PRS-3SG   on   the   sofa
          'Jan is sitting on the sofa.'
      b.   Jan   zit   in   Frankrijk.
          Jan   sit-PRS-3SG   in   France
          'Jan is in France.'   (Hengeveld 1992:238, (3–4))

This evidence leads us to conclude that there is a stable polysemy for posture verbs in Germanic languages such as English and Dutch. In other words, posture verbs expressing the simple position meaning are undergoing a process of desemantization, whereby type-B meaning is fading, with no implication of physical posture, while type-A meaning endures. The loss of type-B meaning is facilitated by the presence of a PP acting as rheme of the process head, which seems to be a consistent trait of copularization processes cross-linguistically. One could hypothesize that this element, which might have been an adjunct to the posture verb initially, like in the maintain position meaning (see Gómez Vázquez 2020), is being reinterpreted as a complement of the verb validating the localizing function of the construction, a stage like that undergone by *remain* or *estar* 'be' during its copularization. This reanalysis is detrimental to the physical posture meaning, that is, type-B meaning, which will eventually weaken, to give way to a copula. The durative aspect of the copula will stem from the type-A meaning codified in the verb root, which in the simple position sense associates with a lexical entry containing a single process head, which we have taken to be the locus of eventivity in the first phase syntax, that is, it contains a spatio-temporal unit.

6 Conclusions

We have put forth the hypothesis that posture verbs can be associated with different lexical entries. If they instantiate the simple pattern, consisting of the category label proc, then their aspectual properties are those of a non-dynamic event. This is the case in English, which exploits its satellite-framed nature to create events of change by syntactically including a resP via *result augmentation* to procP (Ramchand 2008), and causativizes the structure by adding an initP to the first phase syntax. By contrast, the rest of the languages in our sample have been shown to preferentially adhere to the complex pattern, consisting of the category labels init, proc, and res, even though they possess some verbs that follow the simple pattern. Thus, to encode stationary motion, a result participle instantiated by the posture verb root and a

copula are used. Unequivocally, the different type-A meaning codified in the lexical entries of each language's posture verbs determines their ability to encode stationary motion. Another important characteristic of posture verbs is their possibility of having a 'light' version of the full-fledged lexical form, which may co-exist with the latter. These stem from a desemantization process, whereby the verb loses its type-B meaning while still keeping its type-A meaning, which in contexts where posture verbs express a simple position meaning amounts to a procP, which we have here identified with the locus of eventiveness.

Abbreviations

Acc = accusative; Act = active voice; Adv = adverbial; Dat = dative; Dom = differential object marking; Intr = intransitive; Nact = non-active voice; Nom = nominative; Pl = plural; Prs = present; Ptcp = participle; Refl = reflexive; Sg = singular; Tr = transitive.

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Competing interests

The authors have no competing interests to declare.

References

Acedo Matellán, Víctor. 2010. *Argument structure and the syntax-morphology interface. A case study in Latin and other languages*. Barcelona: Universitat de Barcelona dissertation.

Acedo Matellán, Víctor & Mateu, Jaume. 2015. Parameters and argument structure I: Motion predicates and resultatives. In Fábregas, Antonio & Mateu, Jaume & Putnam, Michael (eds.), *Contemporary Linguistic Parameters*, 99–112. London: Bloomsbury.

Alexiadou, Artemis & Anagnostopoulou, Elena & Schäfer, Florian. 2006. The properties of anticausatives crosslinguistically. In Frascarelli, Mara (ed.), *Phases of Interpretation*, 187–211. Berlin: Mouton de Gruyter; Walter de Gruyter. DOI: https://doi.org/10.1515/9783110197723.4.187

Alexiadou, Artemis & Anagnostopoulou, Elena & Schäfer, Florian. 2015. *External Arguments in Transitivity Alternations: A Layering Approach*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199571949.001.0001

Ameka, Felix K. & Levinson, Stephen C. 2007. The typology and semantics of locative predicates: Posturals, positionals, and other beasts. *Linguistics* 45(5–6). 847–1151. DOI: https://doi.org/10.1515/LING.2007.025

Armstrong, Grant. 2013. Agentive reflexive clitics and transitive 'se' constructions in Spanish. *Borealis – An International Journal of Hispanic Linguistics* 2(2). 81–128. DOI: https://doi.org/10.7557/1.2.2.2526

Batllori, Montserrat & Roca, Francesc. 2011. Grammaticalization of 'ser' and 'estar' in Romance. In Jonas, Dianne & Whitman, John & Garrett, Andrew (eds.), *Grammatical Change: Origins, Nature, Outcomes*, 73–92. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199582624.003.0004

Berthele, Raphael. 2004. The typology of motion and posture verbs: A variationist approach. In Kortmann, Bernd (ed.), *Dialectology meets Typology. Dialect Grammar from a Cross-Linguistic*

Perspective, 93–126. Berlin: Walter de Gruyter. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mlf&AN=2006751345&site=ehost-live&scope=site

Berthele, Raphael. 2013. Disentangling manner and path: Evidence from varieties of German and Romance. In Goschler, Juliana & Stefanowitsch, Anatol (eds.), *Variation and Change in the Encoding of Motion Events*, 55–75. Amsterdam / Philadelphia: John Benjamins. DOI: https://doi.org/10.1075/hcp.41.03ber

Berthele, Raphael & Whelpton, Matthew & Næss, Åshild & Duijff, Pieter. 2015. Static spatial descriptions in five Germanic languages. *Language Sciences* 49. 82–101. DOI: https://doi.org/10.1016/j.langsci.2014.07.006

Borer, Hagit. 2005. *Structuring Sense: The normal course of events* Vol. 2. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199263929.001.0001

Bowern, Claire. 2008. The diachrony of complex predicates. *Diachronica: International Journal for Historical Linguistics* 25(2). 161–185. DOI: https://doi.org/10.1075/dia.25.2.03bow

Butt, Miriam & Lahiri, Aditi. 2013. Diachronic pertinacity of light verbs. *Lingua* 135. 7–29. DOI: https://doi.org/10.1016/j.lingua.2012.11.006

Caha, Pavel. 2019. Nanosyntax: Some key features. Retrieved from https://ling.auf.net/lingbuzz/004437

Camilleri, Maris & Sadler, Louisa. 2017. Posture verbs and aspect: A view from vernacular Arabic. In Butt, Miriam & King, Tracy Holloway (eds.), *Proceedings of the LFG17 Conference*, 167–187. Stanford: CSLI Publications.

Carlson, Gregory Norman. 1977. *Reference to kinds in English*. Amherst: University of Massachusetts dissertation.

Chierchia, Gennaro. 2004. A semantics for unaccusatives and its syntactic consequences. In Alexiadou, Artemis & Anagnostopoulou, Elena & Everaert, Martin (eds.), *The Unaccusativity Puzzle: Explorations of the Syntax-Lexicon Interface*, 22–59. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199257652.003.0002

De Miguel, Elena & Lagunilla, Marina Fernández. 2000. El operador aspectual 'se'. *Revista Española de Lingüística* 30(1). 13–44.

Den Dikken, Marcel. 2010. Directions from the GET-GO. On the syntax of manner-of-motion verbs in directional constructions. *Catalan Journal of Linguistics* 9. 23–53. DOI: https://doi.org/10.5565/rev/catjl.93

Dowty, David R. 1979. *Word Meaning and Montague Grammar: The Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ* Vol. 7. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-94-009-9473-7

Embick, David. 2004. On the structure of resultative participles in English. *Linguistic Inquiry* 35(3). 355–392. DOI: https://doi.org/10.1162/0024389041402634

Fábregas, Antonio & Marín, Rafael. 2017. On non-dynamic eventive verbs in Spanish. *Linguistics* 55(3). 451–488. DOI: https://doi.org/10.1515/ling-2017-0001

Folli, Raffaella & Harley, Heidi. 2005. Flavors of v: Consuming results in Italian and English. In Kempchinsky, Paula & Slabakova, Roumyana (eds.), *Aspectual inquiries*, 95–120. Dordrecht: Springer. DOI: https://doi.org/10.1007/1-4020-3033-9_5

Folli, Raffaella & Harley, Heidi. 2020. A Head Movement Approach to Talmy's Typology. *Linguistic Inquiry* 51(3). 425–470. DOI: https://doi.org/10.1162/ling_a_00351

Gómez Vázquez, Diana. 2020. *Posture verbs and internally-caused verbs in Romance and Germanic languages: causativity, stationary motion, and intransitive-locative alternations*. Bellaterra: Universitat Autònoma de Barcelona dissertation.

Harley, Heidi. 2013. External arguments and the Mirror Principle: On the distinctness of Voice and v. *Lingua* 125. 34–57. DOI: https://doi.org/10.1016/j.lingua.2012.09.010

Haspelmath, Martin. 1993. More on the typology of inchoative/causative verb alternations. In Comrie, Bernard & Polinsky, Maria (eds.), *Causatives and Transitivity*, Vol. 23, 87–121. Amsterdam / Philadelphia: John Benjamins. DOI: https://doi.org/10.1075/slcs.23.05has

Hengeveld, Kees. 1992. *Non-Verbal Predication: Theory, Typology, Diachrony* Vol. 15. Berlin: De Gruyter Mouton. DOI: https://doi.org/10.1515/9783110883282

Hoekstra, Teun & Mulder, René. 1990. Unergatives as copular verbs: locational and existential predication. *The Linguistic Review* 7(1). 1–79. DOI: https://doi.org/10.1515/tlir.1990.7.1.1

Jóhannsdóttir, Kristín M. 2006. Posture verbs in Icelandic. In Gurski, Claire & Radišić, Milica (eds.), *Proceedings of the 2006 Annual Conference of the Canadian Linguistic Association*, Vol. 10. Retrieved from http://cla-acl.ca/actes-2006-proceedings/

Kratzer, Angelika. 1995. Stage-level and individual-level predicates. In Carlson, Gregory Norman & Pelletier, Jeffrey (eds.), *The Generic Book*, 125–175. Chicago: Chicago University Press.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In Rooryck, Johan & Zaring, Laurie (eds.), *Phrase structure and the lexicon*, 109–137. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-94-015-8617-7_5

Kuteva, Tania A. 1999. On 'sit'/'stand'/'lie' auxiliation. *Linguistics* 37(2). 191–213. DOI: https://doi.org/10.1515/ling.37.2.191

Levin, Beth & Rappaport Hovav, Malka. 1995. *Unaccusativity: At the Syntax-Lexical Semantics Interface* Vol. 26. Cambridge, Mass.: The MIT Press.

Levin, Beth & Rappaport Hovav, Malka. 2019. Lexicalization patterns. In Truswell, Robert (ed.), *The Oxford Handbook of Event Structure*, 395–425. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780199685318.013.18

Lewandowski, Wojciech. 2021. Constructions are not predictable but are motivated: evidence from the Spanish completive reflexive. *Linguistics* 59(1). 35–74. DOI: https://doi.org/10.1515/ling-2020-0264

Lewandowski, Wojciech & Mateu, Jaume. 2016. Thinking for translating and intra-typological variation in satellite-framed languages. *Review of Cognitive Linguistics* 14(1). 185–208. DOI: https://doi.org/10.1075/rcl.14.1.08lew

Maienbon, Claudia. 2003. *Die logische Form von Kopula-Sätzen* Vol. 56. Berlin: Walter de Gruyter. DOI: https://doi.org/10.1524/9783050082271

Maienborn, Claudia. 2005. On the limits of the Davidsonian approach: The case of copula sentences. *Theoretical Linguistics* 31(3). 275–316. DOI: https://doi.org/10.1515/thli.2005.31.3.275

Mateu, Jaume. 2002. *Argument structure: relational construal at the syntax-semantics interface.* Bellaterra: Universitat Autònoma de Barcelona dissertation.

Mendikoetxea, Amaya. 1999. Construcciones inacusativas y pasivas. In Bosque, Ignacio & Demonte, Violeta (eds.), *Gramática Descriptiva de la Lengua española*, Vol. 2, 1575–1629. Madrid: Espasa.

Mulder, René & Wehrmann, Pim. 1989. Locational verbs as unaccusatives. In Bennis, Hans & van Kemenade, Ans (eds.), *Linguistics in the Netherlands 1989*, 111–122. Dordrecht: Foris. DOI: https://doi.org/10.1515/9783110870060-014

Newman, John. 2002. *The Linguistics of Sitting, Standing and Lying* Vol. 51. Amsterdam / Philadelphia: John Benjamins. DOI: https://doi.org/10.1075/tsl.51

Piñón, Christopher. 1999. Durative adverbials for result states. In Bird, Sonya & Carnie, Andrew & Haugen, Jason D. & Norquest, Peter (eds.), *Proceedings of the 18th West Coast Conference on Formal Linguistics*, 420–433. Somerville, Mass.: Cascadilla Press.

Pujalte, Mercedes & Saab, Andrés. 2012. Syncretism as PF-Repair: The case of 'se'-insertion in Spanish. In Cuervo, María Cristina & Roberge, Yves (eds.), *The End of Argument Structure?*, Vol. 38. Leiden, The Netherlands: Brill.

Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, Mass.: The MIT press. DOI: https://doi.org/10.7551/mitpress/9780262162548.001.0001

Ramchand, Gillian Catriona. 2008. *Verb Meaning and the Lexicon: A First-Phase Syntax,* Vol. 116. Cambridge, Mass.: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511486319

Ramchand, Gillian Catriona. 2014. On structural meaning vs conceptual meaning in verb semantics. *Linguistic Analysis* 39(1). 207–244.

Ramchand, Gillian Catriona. 2018. *Situations and Syntactic Structures: Rethinking Auxiliaries and Order in English*. Cambridge, Mass.: The MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262037754.001.0001

Rothmayr, Antonia. 2009. *The Structure of Stative Verbs*. Amsterdam / Philadelphia: John Benjamins. Retrieved from https://search.ebscohost.com/login.aspx?direct = true&db = mlf&AN = 2009933405&site = ehost-live&scope = site. DOI: https://doi.org/10.1075/la.143

Rothstein, Susan. 2004. *Structuring Events: A Study in the Semantics of Lexical Aspect,* Vol. 5. Malden, Mass.: John Wiley & Sons. DOI: https://doi.org/10.1002/9780470759127

Silvagni, Federico. 2017. *Entre estados y eventos: un estudio del aspecto interno del español*. Bellaterra: Universitat Autònoma de Barcelona dissertation.

Smith, Carlota S. 1991. *The Parameter of Aspect*. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-94-015-7911-7

Starke, Michal. 2010. Nanosyntax: A short primer to a new approach to language. *Nordlyd* 36(1). 1–6. DOI: https://doi.org/10.7557/12.213

Talmy, Leonard. 1991. Path to realization: a typology of event conflation. In Sutton, Laurel A. & Johnson, Christopher & Shields, Ruth (eds.), *Proceedings of the Seventeenth Annual Meeting of the Berkeley Linguistics Society, 1991*, 480–519. Berkeley: Berkeley Ling. Soc. Retrieved from https://search.ebscohost.com/login.aspx?direct = true&db = mlf&AN = 1993010417&site = eh ost-live&scope = site. DOI: https://doi.org/10.3765/bls.v17i0.1620

Talmy, Leonard. 2000. *Toward a Cognitive Semantics* Vol. 2. Cambridge, Mass.: The MIT Press. DOI: https://doi.org/10.7551/mitpress/6847.001.0001

Taylor, Barry. 1977. Tense and continuity. *Linguistics and Philosophy* 1(2). 199–220.

Travis, Lisa deMena. 2010. *Inner aspect: The articulation of VP*. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-90-481-8550-4

Van Gelderen, Elly. 2009. Grammaticalization from a biolinguistic perspective. In Botha, Rudolf & Knight, Chris (eds.), *The Prehistory of Language*, Vol. 11, 225–243. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199545872.003.0012

Van Gelderen, Elly. 2015. The copula cycle. *Lingue e Linguaggio* 14(2). 287–301.

Vendler, Zeno. 1957. Verbs and Times. *The Philosophical Review* 66(2). 143–160. DOI: https://doi.org/10.2307/2182371

Viberg, Åke. 2013. Posture verbs: A multilingual contrastive study. *Languages in Contrast* 13(2). 139–169. DOI: https://doi.org/10.1075/lic.13.2.02vib