

Differentiating eventivity and dynamicity: the Aktionsart of Davidsonian state verbs

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Abstract. One of the longstanding problems in linguistic analysis is to determine the nature of Aktionsart and the kind of representations that account for the different aspectual classes of predicates. Recent developments in this issue (Maienborn 2005; Borer 2005; Ramchand 2008; MacDonald 2008; Rothmayr 2009) have raised two interrelated questions: how many classes there are and how they can all be integrated in an analysis that explains their properties with a minimum of primitives. In this article we explore one class that seemingly has mixed properties of events and states, Davidsonian states, and we propose an analysis where they are integrated with the independently motivated classic Vendler-Dowty classification without requiring to posit new primitives or giving up the distinctive properties that differentiate between the classes. In doing so, we will argue for a separation of eventivity and dynamicity, the former caused by the presence of a designated syntactic head and the latter being the result of the interpretation of specific structures where the head that introduces the event takes as complement specific constituents that in combination with the event produce a change denotation, and with it, dynamicity.

1. *Aktionsart and its ingredients in a constructionist approach*

Since the seminal work of Dowty (1979), there has been a great deal of discussion about the grammatically relevant classes of eventualities, defined attending to the general ingredients of their internal aspectual structure. The questions that are raised inside this debate are manifold, and affect to issues such as whether the aspectual classes are necessary in linguistic explanation or not (see specially Verkuyl 1993) and what their interaction is with the argument structure (see Tenny 1992, Ramchand 2008). Perhaps more recent attention has been devoted to three issues:

- a. What the proper way of representing the different Aktionsart classes is; that is, through syntactic trees as in Ramchand (2008) or MacDonald (2008), through differentiating flavours of a single head as in Harley (1995) or through semantic structures without any direct reflect in the syntax of the predicate, as in Jackendoff (1990).
- b. How many aspectual classes need to be differentiated in order to give a whole and sufficient account of the grammar of natural languages
- c. What the primitives that differentiate one class from the other are.

This article addresses the last two questions. We will explore a class of predicates such as *rule* (*a country*) or *coordinate* (*a team of people*) which, to our mind, are still relatively understudied in the literature, and we will argue that they aspectually pattern with so-called verbs of position or body posture such as *sit*, *stand* and *lie*. Their aspectual status has been a matter of considerable debate: they have been treated as “interval states” (Dowty, 1979) and as “dynamic states” (Bach, 1986), trying to capture the fact that these verbs are in a sense halfway between processes and states. More recently, Maienborn (2005, 2008) has properly analysed them, as well as other type of verbs like so-called verbs of emission (*gleam*, *glow*, *bubble*), as Davidsonian states (D-states). Given that Maienborn’s approach is recent and has been followed by a number of researchers (Rothmayr 2009, Fábregas & Marín in press), we will use her terminology in this article.

These predicates, as we will show, exhibit an intermediate behaviour which combines prototypical event characteristics with other properties that are generally associated to states. As we will see, this causes trouble both from an empirical and a theoretical perspective. In the empirical side, there is no doubt that we want to be able to properly characterise classes of predicates by a set of coherent properties that allow them to be treated as a natural class so that our description of the phenomena where they are involved is sufficiently clear and definite. But, at the same time, from the theoretical and analytical perspective, the apparently mixed behaviour of a whole class of predicates brings up some questions that do not have an easy answer in a formal system where properties of words are fully specified in the lexicon.

Here we will adopt a constructionist approach and argue that, once it is properly implemented, it is able to account for what seems to be mixed properties of a predicate. Ultimately, the explanation that we will propose is that the properties seem to be mixed because our standard notion of eventivity –which crucially associates directly being eventive and being dynamic– is an oversimplification. We will argue that part of what we characterise as an activity has to be specified in the lexical entry of a head (Proc), while a great deal cannot be specified in the head and must be compositionally derived from properties of the syntactic structure where that head occurs.

The article is structured as follows. In section 2 we will present what a D-state is, and we will show in what sense they can be considered to display a mixed state and event behaviour. In section 3 we will identify a set of transitive verbs having a D-state behaviour which, to the best of our knowledge has been previously unidentified in the literature. In section 4 we propose an analysis that explains their mixed behaviour without giving up the idea that aspectual classes are differentiated by specific features. And section 5 briefly summarizes the main conclusions of the present work.

2. *Davidsonian states*

Maienborn (2005) offers two main diagnostics to identify as stative the verbs in (1), which she calls Davidsonian-states:

- (1) sit, stand, lie, gleam, glow, bubble, sleep, wait, shine, whistle, creak, kneel, shimmer.

In the first place, they pattern with statives with respect to their subinterval properties: “while processes involve a lower bound on the size of subintervals that are of the same type, states have no such lower bound. [...] If for a certain time interval I it is true that, for example, Eva is standing at the window, sleeping, or the like, this is also true for every subinterval of I. In this respect, D-state verbs pattern with statives” (Maienborn 2005). Or in other words: these verbs are different from activities in the sense that they do not involve any change at all, so that any subinterval of the predicate, no matter how short, will still represent the same predicate. In contrast, an activity involves some change; ‘running’, in an appropriately short interval, is no longer ‘running’, but ‘jumping’ or ‘flying with both legs off the ground’, or something along these lines. Crucially, the notion that differentiates the verbs in (1) from activities is ‘change’, which is a condition to consider that a predicate is dynamic.

Secondly, anaphoric reference by *geschehen* (‘to happen’) can only be used to refer to dynamic predicates, as seen in (2), (3) and (4); this verb does not accept easily pure statives – which Maienborn calls Kimian-states-, (3), or D-state verbs, (4). However, while the rejection

is clear in the cases in (3), some speakers marginally accept the anaphoric relation in D-state verbs like those in (4) (cf. 4c, 4d, from Spanish). This might indicate that the rejection of the anaphor with verbs like *sleep* and *wait* seen in (4a, 4b) could be related to the semi-psychological nature of these predicates, that involve some mental state.

- (2) a. Eva spielte Klavier / Die Kerze flackerte.
 ‘Eva played piano / The candle flickered.’
 b. Das geschah während...
 ‘This happened while...’
- (3) a. Eva kannte die Adresse / Eva hasste Mozart-Arien
 ‘Eva knew the address / Eva hated Mozart arias.’
 b. *Das geschah während...
 ‘This happened while...’
- (4) a. Heidi schlief / Eva wartete auf den Bus.
 ‘Heidi slept / Eva waited for the bus.’
 b. *Das geschah während...
 ‘This happened while...’
 c. La lámpara brillaba intensamente.
 the lamp shined intensely
 d. Esto sucedía mientras...
 this happened while...

Given the unclear status of this second test and the strongly conceptual nature of the first test, one could think that perhaps these verbs do not have any state-like properties at all and, therefore, that we do not have a problem. However, in the next sections we will show a number of other properties of these predicates that indicate that, as Maineborn suggests, they have a problematic aspectual status.

2.1 Additional tests on the non-dynamicity of D-states

Other tests showing the non-dynamicity of D-states could be added to those provided by Maienborn (2005). First, D-states are not compatible with *parar* ‘to stop’ (Dowty, 1979), (5). This is unexpected if they are activities, because they are compatible with this verb (6).

- (5) a. *La lámpara ha parado de brillar.
 the lamp has stopped of shine
 b. *Esteban ha parado de esperar.
 Esteban has stopped of wait
- (6) Esteban ha parado de correr.
 Esteban has stopped of run

Second, D-states do not combine with *despacio* / *lentamente* ‘slowly’ or *poco a poco* ‘gradually’, (7), conversely to dynamic verbs, (8):

- (7) a. *La lámpara brilla despacio.
 the lamp shines slowly
 b. *Esteban espera poco a poco.
 Esteban waits little by little
- (8) Esteban pasea lentamente.
 Esteban walks slowly

Third, unlike dynamic verbs, (10), D-states do not receive a habitual reading in present tense, (Dowty, 1979), (9). This is expected if they denote some homogeneous eventuality, such as that any precise temporal interval occupied by the eventuality counts as the predicate. In contrast, activity verbs are interpreted as habituais in the present tense, because their events are not homogeneous and therefore it is not true that in any precise instant the predicate is true.

- (9) a. La lámpara brilla.
 the lamp shines (=is shining now)
 b. Juan espera en el pasillo.
 Juan waits in the corridor (=is waiting now)
- (10) Esteban {escribe / fuma}
 Esteban {writes / smokes} (= habitually)

The results of the previous tests might indicate that these verbs should be classified, plain and simple, as states. However, they do not have a typical state behaviour either, as show in the following section.

2.2 D-states are not prototypical states either

In Maienborn's proposal (2005, 2008), Kimian-states lack an event argument and are in contrast to what she calls (Davidsonian) eventualities, which have an event argument. The Davidsonian eventualities are "particular spatiotemporal entities with functionally integrated participants". That is: unlike Kimian-states, which are not bound to time and space, the class of items labelled D-states provide information about these two dimensions. From this definition, three main ontological properties follow, according to Maienborn (2005): eventualities (i) are perceptible; (ii) can be located in space and time, and (iii) can vary in the way that they are realised. In contrast, prototypical states are sets of properties rather than eventualities.

Given that definition of an eventuality, several tests can be designed to determine if a predicate falls in one or the other group. For instance, as Maienborn does, we can test whether they (i) serve as infinitival complements of perception verbs; (ii) combine with locative and temporal modifiers, and (iii) combine with manner adverbials, instrumentals, comitatives, and other functionally integrated participants. As illustrated by Maienborn (2005, 2008) for German, D-states pass all these tests, while K-states do not pass any of them. Spanish D-states behave similarly:

- (11) a. Vi brillar sus zapatos.
 I.saw shone his shoes
 b. Vi dormir a Pedro.
 I.saw sleep to Pedro
- (12) a. Un taxi nos espera en el próximo semáforo.
 a taxi us waits in the next traffic light
 b. Las perlas brillan en su cuello.
 the pearls shine in her neck
- (13) a. Fertuoso duerme plácidamente.
 Fertuoso sleeps calmly

- b. Eustaquia espera impacientemente una respuesta.
Eustaquia waits impatiently an answer

2.3 Summary

The diagnostics used throughout this section are summarized in the following Table.

| | Process | D-state | K-state |
|---|---------|---------|---------|
| subinterval property | – | + | + |
| anaphoric reference of <i>this happened</i> | + | – | – |
| complement of <i>stop</i> | + | – | – |
| compatibility wit <i>slowly</i> or <i>gradually</i> | + | – | – |
| habitual reading in present tense | + | – | – |
| infinitival complements of perception verbs | + | + | – |
| event-related manner adverbial | + | + | – |
| event-related place adverbial | + | + | – |
| time-span reading with <i>a little</i> | + | + | – |

Table I. Comparison of the aspectual behavior of processes, D-states and K-states

As we can see, the aspectual behavior of D-states indeed place them halfway between processes and K-states.

3. Other verbs that behave like D-states

In addition to (1), we have identified another group of verbs also denoting D-states, at least in Spanish:

- (14) *gobernar* ‘govern’, *dirigir* ‘direct’, *presidir* ‘head’, *habitar* ‘inhabit’, *coordinar* ‘coordinate’, *controlar* ‘control’, *supervisar* ‘supervise’, *mantener* ‘maintain’, *sostener* ‘support’.

As in the case of the D-states studied by Maienborn, it is not easy to assign an aspectual value to these verbs in standard (Vendler-Dowty) aspectual terms, given that they also show a behavior that place them between processes and states.

3.1 Gobernar verbs are not dynamic

Among the state-like properties shown by *gobernar* verbs, (14), note first that they fulfil the subinterval property (Bennett & Partee, 1972), so they are supposed to be strictly homogeneous predicates (Rothstein, 2004). Thus, reusing Maienborn’s formulation, if for a certain time interval I it is true that, for example, Esteban is ruling a country, managing a company, or the like, this is also true for every subinterval of I.

As other D-state verbs –like those in (1)– *gobernar* verbs are not always clearly rejected as antecedents of *geschehen* ‘to happen’.

- (15) a. Esteban gobernó esta nación durante varios años.
Esteban ruled this nation for several years
b. Esto sucedió mientras...
this happened while...

- (16) a. Mariona habitó esta casa durante varios años.
 Mariona inhabited this house for several years
 b. ?Estó sucedió mientras...
 this happened while...

There are other tests clearly showing that *gobernar* verbs are not dynamic. First, they are not compatible with *parar*:

- (17) a. *Fertuoso ha parado de {dirigir / presidir} la empresa.
 Fertuoso has stopped of {rule / head} the company
 b. *Eustaquia ha parado de habitar aquí.
 Eustaquia has stopped of inhabit here

Second, they are not compatible with *despacio / lentamente* ‘slowly’ or *poco a poco* ‘gradually’.

- (18) a. *Fertuoso ha {dirigido / presidido} esta empresa lentamente.
 Fertuoso has {rules / headed} this company slowly
 b. *Eustaquia ha habitado aquí poco a poco.
 Eustaquia has inhabited here little by little

Third, they do not receive a habitual reading in present tense:

- (19) a. Fertuoso {dirige / preside} esta empresa.
 Fertuoso {rules / heads} this company
 b. Eustaquia habita aquí.
 Eustaquia inhabits here

3.2 Gobernar verbs are not K-states either

Once shown that *gobernar* verbs are not dynamic, it is time to show that they do not denote K-states, but D-states. Unlike D-states, K-states are not compatible with event-related manner adverbials, (21); *gobernar* verbs pattern with D-states in allowing these modifiers, (20).

- (20) Gerineldo gobierna España ordenadamente.
 Gerineldo rules Spain orderly
 (21) *Eustaquia posee casas ordenadamente.
 Eustaquia owns houses orderly

Conversely to K-states, *gobernar* verbs can combine with event-related locative adverbials:

- (22) Gerineldo dirige la empresa en su casa.
 Gerineldo directs the company in his house
 (23) *Eustaquia conoce la dirección en el jardín.
 Eustaquia knows the address in the garden

With D-states, the adverbial *un poco* ‘a little’ is ambiguous between a time-span or a degree reading, while with K-states, only the degree reading is available. Again, *gobernar* verbs pattern with D-states:

- (24) Gerineldo dirigió un poco las obras.
Gerineldo supervised a little the working [time-span or degree reading]
- (25) Eustaquia se parecía un poco a su madre.
Eustaquia SE resembled a little to her mother [only degree reading]

Gobernar verbs, although not so easily than other D-state verbs, also show up as infinitival complements of perception verbs:

- (26) a. Los ciudadanos vieron a Zapatero gobernar España con auténtico terror.
the citizens saw to Zapatero rule Spain with sheer panic
- b. Yo lo vi habitar esta casa.
I him saw inhabit this house

3.3 Summary

The results of this section show that *gobernar* verbs display a behaviour which again places them in an intermediate position between states and events.

| | <i>Gobernar</i> | D-state |
|---|-----------------|---------|
| subinterval property | + | + |
| anaphoric reference of <i>this happened</i> | – | – |
| complement of <i>stop</i> | – | – |
| compatibility wit <i>slowly</i> or <i>gradually</i> | – | – |
| habitual reading in present tense | – | – |
| infinitival complements of perception verbs | + | + |
| event-related manner adverbial | + | + |
| event-related place adverbial | + | + |
| time-span reading with <i>a little</i> | + | + |

Table II. Comparison of the aspectual behavior of *gobernar* verbs and (other) D-states.

4 Analysis: severing dynamicity from eventivity

We now move to the analysis of the pattern of data presented in the previous sections. In the reminder of this article we will argue for a syntactic representation that allows treating eventivity and dynamicity as coming from different sources, with eventivity being possible to appear in the absence of dynamicity. More in particular, we will argue that eventivity is dependent on the presence of a head Process that provides the syntax with an event argument that can be taken by the progressive periphrasis and by time, manner and place modifiers, as it is usually the case in a Neo-Davidsonian approach. However, dynamicity is not introduced by any head: it is obtained (or not obtained) from properties of the syntactic configuration, and more in particular of the kind of complement that the head which denotes the event takes once the structure has been built. We will then argue that D-states correspond to trees with the Process head that, however, fail to define dynamicity because of the nature of the complement of that head. Within this general proposal, we will provide an analysis for *gobernar* verbs by arguing that the absence of dynamicity is due to the presence of a prepositional structure as complement of the event head.

4.1 *The standard theory: eventivity implies dynamicity*

According to the standard description, there is a tendency to claim that activities are always eventive and dynamic. Accomplishments and achievements are also eventive and dynamic, while states are non eventive and non dynamic. This has been captured in a number of theories (starting from Dowty 1979), which have as a common denominator to associate directly eventivity and dynamicity: states lack the process part in their Aktionsart and therefore dynamicity; the other three have the process part and therefore dynamicity. However, the data that have been presented in the previous sections indicate that this is an oversimplification of the data: if we were to adopt this simplified version, verbs of the *governar* class would occupy a mysterious position between states and events. Therefore, in this part of the article we will propose a theory where eventivity is independent of dynamicity. Let us start with a brief presentation of one of the most recent theories where this association between events and dynamicity is made: Ramchand (2008). The reasons for adopting this framework is that it is constructionist and argues in favour of a strong isomorphism between syntax, semantics and morphology. Given the strength of this approach, we will assume parts of it in our own analysis and make some modifications to make it applicable also to the classes of verbs that occupy us here.

In Ramchand's theory (2008: 40-41), each subevent of a predicate is associated to specific syntactic heads: (a) *InitP* (in other theories, VoiceP –Kratzer 1996– or vP –Chomsky 1995–): Introduces the causation of the event and licenses the external argument; (b) *ProcP* (in other theories, vP or VP –Larson 1988–): It is the dynamic part of the predicate; it specifies the nature of the change of state or process and introduces the entity that undergoes it; (c) *ResP* (in other theories, VP or some PPs and particles): Gives the result state of the event; it introduces the entity that holds it.

In contrast, in our analysis we will argue for keeping as separate concepts the notions of eventivity and dynamicity, as follows: (a) Containing a process as part of the entry of a verb: containing an event argument (that is, an entity that allows for modification in time and space and that can be planned and executed by sentient entities); (b) Being dynamic: denoting (abstract) movement within a time period in some quality space (Lombard 1979).

We will argue for a reinterpretation of eventivity as the product of a designated syntactic head (*Proc*), while dynamicity –in contrast– is the result of specific interpretations of that event dependent on the kind of complement that the event-denoting head selects.

4.2 *Paths as ingredients of dynamicity*

The first object that in Ramchand's theory (2008) is associated to dynamic readings of an event is a path. A path is a relation between an entity and an event such as there is a monotonic relationship between measures of a property of the entity and parts of the event.

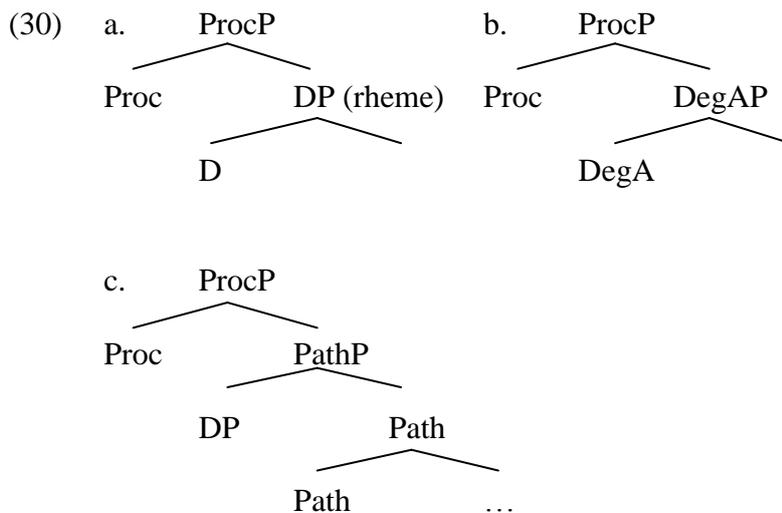
Different kinds of dimensions can be used to measure subparts of an event, and therefore can count as parameters to determine that change and movement take place.

- (27) Through quantities of an entity or group of entities
- a. John ate an apple
 - b. John collected the stamps from the floor.

- (28) Through degrees in a scale (frequently incorporated into the verb)
 a. The water cooled down.
 b. John fattened up.

- (29) Through stretches of space
 a. John walked three miles.
 b. John pushed the cart to the window.

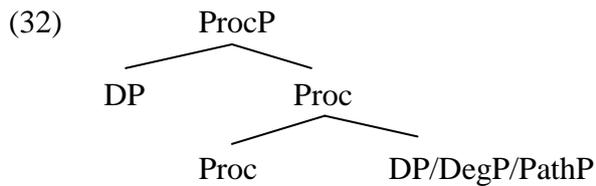
Thus, paths are one way of giving dynamicity to a process. Not departing much from the spirit of Ramchand, we can propose the following more specific syntactic formalisation of these kinds of path:



In our representations, the head taken by Proc as a complement codifies one of the notions that are used for the homomorphic mapping between a particular dimension and the event expressed by Proc: a definite entity whose conceptual information contains parts that can be used to measure the change in the event; a degree scale that allows for evaluation of a change in a property taking place, or a spatial path consisting of a series of ordered points through which movement can take place (Svenonius 2010). What all these heads have in common is that they denote a structured set of parts, these parts being pieces of an entity or individuals in a group, degrees in a scale or points in a path.

The notion of path is presupposed when trying to define other arguments of Proc. Thus, for example, undergoers are defined to the extent that they are combined with a path (Ramchand, 2008: 52): ‘Undergoers are individuated entities whose position / state or motion / change is homomorphically related to some path’. Undergoers are thus (metaphorical) travellers. From here it follows that the following sentences have a path argument, even though it is not expressed as a separate argument.

- (31) a. John ran.
 b. John pushed the cart.



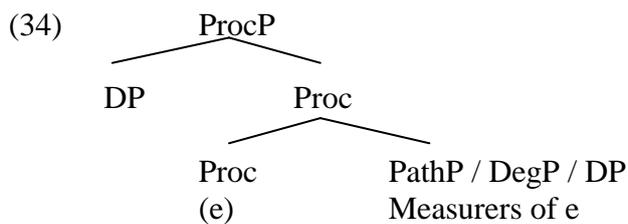
This structure produces automatically ‘duration’: given that the objects in the complement position of Proc are internally complex, movement through this dimension can be conceptualised as occupying a non-trivial period of time.

4.3 Eventivity is independent of dynamicity

With this background in mind, we can show how the event introduced by Proc acquires its properties from the nature of its complement, and how absence of some of those properties produces a non-dynamic event. Our proposal can be summarised as follows:

- (33) ProcP only provides with an event argument, but does not specify dynamicity.
 Dynamicity comes as a side-effect of the kind of complement that Proc takes

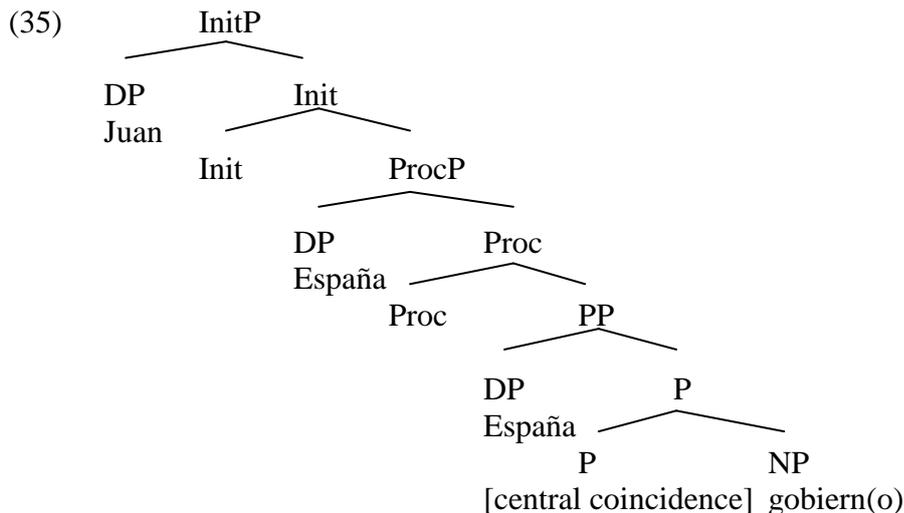
What we want to highlight is that dynamic events selecting a Path as the complement of ProcP can be interpreted as telic or atelic.



We propose that Proc only provides with an event argument (understood as in Parsons 1990), and that the properties of that event are dependent on the elements introduced as the complement of Proc; in this particular case, they are structured complex entities. The fact that they denote series of units allows for the isomorphism between the measure, counted in those units, and the event. This provides dynamicity, as there is a change; and duration, as there is more than one unit inside a path (so the travel through that dimension can span more than one point).

4.4 Gobernar-verbs contain a central coincidence P

Consider now *gobernar* verbs. What we require to account for their apparently mixed behaviour between events and states is to endow it with a Proc head (accounting therefore for their eventive properties), but not merging any kind of Path in its complement. The proposed structure is represented in (35), which represents the verbal predicate in the sentence *Juan gobierna España*, ‘John rules Spain’.



In this structure, we are profiting from Hale & Keyser’s (2002: 208-225) distinction between central coincidence prepositions and terminal coincidence prepositions (see also Mateu 2002). The central coincidence prepositions express a relation of inclusion of an figure in a ground (36a); the terminal coincidence prepositions introduce a ground which is a terminus of a (metaphorical) movement (36b), that is, the relation between the figure and the ground is such that the figure is directed towards the ground. Terminal coincidence prepositions denote change when embedded under event denoting heads.

- (36) a. John is in the shop.
b. John goes to the shop.

Note that the path prepositions that we have analysed previously are terminal coincidence prepositions. Central coincidence prepositions, on the other hand, express states; for this reason, in stative constructions such as the with-construction in English (Hale & Keyser 2002: 27) or under stative verbs only central coincidence prepositions can appear (that is, no path-denoting Ps).

- (37) a. With the parrot {in / *into} its cage, we can all breathe a sigh of relief.
b. The parrot is {in / *into} its cage.

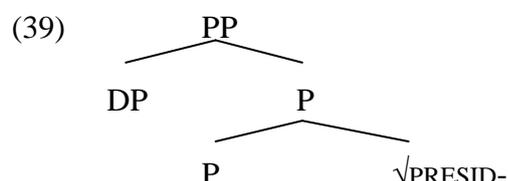
Consider now our decomposition of the predicate *Juan gobierna España*. What our decomposition expresses is that Juan is volitionally controlling, as causer –specifier of InitP– an event –ProcP– that affects Spain –the specifier of ProcP–. The event is one of keeping Spain in a steady relation with government, that is, keeping Spain under government. This structure, as we see, compositionally accounts for the intuitive meaning of the verb *gobernar*.

Let us see now how it captures for the absence of dynamicity. The complement of Proc, the event denoting head, denotes a stative relation between a figure (*Spain*) and a ground (*government*). There is no change involved because the relation is of inclusion; the event purely consists on keeping the two entities in that relationship. As a result of that, the event is not interpreted as dynamic, because there is no change. Proc, here, is interpreted in a form similar to the verb ‘maintain’ or ‘keep’ (see Jackendoff 1983 for the status of this concept in the semantic ontology), but this does not need to be expressed by positing a different head from the one present with verbs that denote dynamic changes: it is obtained from the semantic contribution of its complement.

Note that in some of the *gobernar* verbs, but not all of them, the verb is denominal. Despite the English translation, where the complement of the central coincidence preposition is a deverbal nominalisation (*govern-ment*) in Spanish the related noun can be shown to be non-deverbal. To begin with, the verb is obtained by adding the theme vowel *-a* to the noun *gobierno*. One of the tests that we can apply to show that the noun is not derived from the verb by removing the theme vowel and adding the noun marker *-o* is that the noun cannot license the preposition *por* ‘by’ to introduce agents (38a); this is licensed in deverbal nouns (38b), but never in non-deverbal ones (38c).

- (38) a. el gobierno de España (*por Zapatero)
 the government of Spain (by Zapatero)
 b. la administración de España (por Alemania)
 the supervision of Spain (by Germany)
 c. el libro de matemáticas (*por el profesor)
 the book of mathematics (by the teacher)

Other verbs of this group that have the same morphological relation with the related noun are *controlar* (from *control* ‘control’) and perhaps *habitar* ‘to inhabit’, which can be historically related to the noun *hábito* ‘custom’. In the other cases, the noun is morphologically more complex than the verb: *dirigir* ‘direct’ > *direc-ción* ‘direction’; *presidir* ‘preside’ > *presidencia* ‘presidency’; *coordinar* ‘coordinate’ > *coordina-ción* ‘coordination’. In such cases we suggest that the relation is established with the root as ground (39). Given that roots have their semantics underspecified and only acquire a full semantics inside a context (Arad 2003, Acquaviva 2009, Borer 2010), dominated by a central coincidence preposition it will be interpreted as one of the two entities inside a relation.



Ultimately, the question of whether the verbs are morphologically built from a noun or the noun is morphologically built from a verb reduces to which sets of features have an independent morphological exponent with which roots in the language. There is an exponent for the root $\sqrt{\text{CONTROL}}$ as a noun in Spanish, but the verb has to be built over it by adding another exponent. In contrast, the root $\sqrt{\text{PRESID}}$ lacks a designated exponent for a nominal context, and as such it is built over the verb.

4.5 Wrapping-up: explaining the mixed properties of these verb classes

Given that ProcP is present, we can explain the properties of the *gobernar* class that make them unlike states. The presence of ProcP provides the verb with an event argument which allows for:

- a. Being the antecedent of ‘happen’.
 This is possible because the verbs do contain an event.
- b. Compatibility with manner adverbs (provided they do not presuppose dynamicity).

This is possible because manners are predicates of events and these verbs contain an event argument.

- c. Possible underspecified temporal modification (*un poco*).
This is possible because they can have a temporal duration, because they have an event.
- d. They can be selected by perception verbs.
This is possible because they contain an event; they do not sound always perfect because perception of non-dynamic events might not be pragmatically relevant out of context –it tends to be perceived on the presupposition that the event should not have happened in that way–

Provided that the complement taken by Proc in these verbs does not imply any change, the event is non dynamic. This accounts for the following properties, unexpected for traditional events:

- a. They cannot be selected by *parar de* because they do not involve any change.
- b. They cannot be combined with adverbs like *rápido* and *lentamente* because there is no change, and therefore no possible measure of speed.
- c. They do not require a habitual reading in the present because they are non dynamic, and as such denote a predicate which gives a homogeneous description in any temporal interval.
- d. The interpretation of their participle is not resultative, just as it is the case with state verbs, because there is no dynamicity. The event denotes keeping two entities in some relation, and the participle construction expresses the same state relation, only that through a participle.

5. Conclusions

To conclude, in this article we have argued in favour of an analysis where the mixed stative and eventive properties of D-states are explained not by proposing new primitives or new classes, but by deriving dynamicity from structural properties in the internal syntactic structure of predicates. Several issues have been left aside in doing so, and as a result they are left for further research:

- a. The conditions under which a D-state can be transitive or intransitive.
- b. The role of scales in predicates involving adjectival constituents.
- c. The proper treatment of participles in general, and in particular the features associated to the participial morphology.

Despite these issues that have been largely ignored in our analysis, we hope that at least we could provide a convincing analysis of the relation between eventivity and dynamicity and of the class of D-states inside a constructionist approach.

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