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# TRANSITIVITY AND SELF-CAUSED READINGS IN SPANISH DEVERBAL NOUNS

## ABSTRACT

*This paper examines the structural properties underlying the distribution and interpretation of two types of deverbal nouns in Spanish: miento nominals (e.g. hundimiento ‘the sinking’) and do/da nominals (e.g. secado ‘the drying’); the first may combine with unaccusatives and verbs that enter the causative alternation, targeting the anticausative reading. By contrast, the latter type may select unergatives and the so-called incremental theme verbs, yielding a causative reading. Based on empirical evidence, I argue that the distributional and interpretive differences observed follow from the fact that these nominalizers are sensitive to different syntactic configurations in the event domain: building on Ramchand’s decompositional analysis, I propose that the event structure of do/da nominals identifies a sequence [init, proc], where subjects are interpreted as thematic Actors, and I show how this correlates with the absence of miento and the impossibility of reflexive readings (e.g. lavado ‘the washing \*of oneself /\*by itself’).*

## KEYWORDS

nominalizations; event structure; Nanosyntax; Spanish

## 1. Introduction

Forms such as *movimiento* ‘movement’ and *recogida* ‘collection’ in (1) have been traditionally defined as event-denoting nouns derived from a verbal base. They behave like nouns in terms of distribution, but exhibit some verbal traits, such as temporal extension and the possibility of expressing the verbal argument(s) inside a prepo-

\* This work has been supported by the Research Group HiTT (Basque Government, IT769-13).

sitional phrase.<sup>1</sup> Nevertheless, these nominals lack tense and are unable to assign accusative case, unlike their verbal counterparts.<sup>2</sup>

- (1) a. *Los físicos estudiaron el movimiento de los planetas alrededor del Sol.*  
 ‘The physicists studied the movement of the planets around the Sun.’  
 b. *La recogida de la basura tuvo lugar a las ocho de la tarde.*  
 ‘The waste collection took place at 8 in the evening.’

Several facts allow us to classify them as eventive: first, they are compatible with the event-denoting predicate *to take place* (1b); second, they can combine with temporal and locative modifiers such as *at 8* and *around the Sun*; third, they can pluralize with an iterative interpretation (e.g. *hubo varios movimientos* ‘there were a number of movements’, i.e. several events of moving).

In Spanish, the morphological makeup of these nominals is not limited to *miento* and *do/da*: different nominalizers like *dura* or *ción*, among others, are used in some cases, as illustrated in (2a-b) below.

- (2) a. *invertir > investidura* (\**inversión*, \**invertimiento*, \**invertido/da*)  
 ‘to invest’ > ‘investiture’  
 b. *construir > construcción* (\**construidura*, \**construimiento*, \**construido/da*)  
 ‘to build’ > ‘building’

Such morphological diversity brings up the question of whether it is possible to identify a set of properties which determine the distribution of the different nominal “types” across verb classes. In other words, whether the outcome of the derivation is predictable to some extent. For the type of approach assumed in this work the issue of predictability does matter, but before moving on to present the theoretical foundations of the analysis (§2), allow me to illustrate the specific empirical problem addressed in this contribution: it concerns the degree of transitivity exhibited by *miento* and *do/da* nominals, as well as that of their corresponding verbs.

### 1.1 The problem

Some verbs may take one or two arguments, in other words, they can be used both intransitively and transitively. However, each of them gives rise to a different nomi-

1 In fact, many times they are obligatorily expressed in the nominal context: e.g. *los planetas* ‘the planets’ in (1a). Without an explicit argument, the sentence is ungrammatical: \**...el movimiento [ ] alrededor del Sol*. The (non)optionality of arguments in these constructions is something that needs further investigation.

2 I am leaving aside a few cases where the *a* preposition might be seen as an accusative case marker. This is still a matter of discussion among researchers: *los constantes ataques* [a la prensa], literally ‘the constant attacks [<sub>ACC. marker</sub> ? the press]’.



nal type which allows only one of two possible interpretations: either the “caused event” reading or the “self-caused” event reading.

First, consider the case of *enloquecer*, which may denote an event of driving somebody crazy (3a), or the event of someone going crazy (3b). The corresponding nominal, *enloquecimiento*, only allows the ‘going crazy’ interpretation, as shown by the fact that it accepts causal modifiers (3c) (*a causa de los músicos*) but cannot appear with agentive *by*-phrases (3d) (*por parte de los músicos*).

- (3) a. *Los músicos<sub>(i)</sub> enloquecían al público con su<sub>(i)</sub> actuación.*  
 ‘The musicians were driving the audience crazy with their performance.’  
 b. *El público enloqueció (a causa de los músicos).*  
 ‘The audience went crazy (because of the musicians).’  
 c. *El enloquecimiento del público (a causa de los músicos).*  
 ‘The audience going crazy (because of the musicians).’  
 d. \**El enloquecimiento del público por parte de los músicos.*  
 Intended reading (transitive): ‘The musicians driving the audience crazy.’

In fact, many other verbs which denote changes of state are systematically selected by *miento* and interpreted as self-caused when nominalized, leaving out the causative counterpart. Some examples are presented in Table 1 below.

**Tab. 1 Event nominals related to change-of-state verbs**

Verb	Sentence	Nominal
<i>abaratar(se)</i> ‘cheapen/become cheaper’	<i>Los precios se abarataron.</i> ‘Prices became cheaper.’	<i>abaratamiento</i>
<i>enfriar(se)</i> ‘cool (down)’	<i>La habitación se enfrió.</i> ‘The room cooled down.’	<i>enfriamiento</i>
<i>agrietar(se)</i> ‘crack’	<i>La pared se agrietó.</i> ‘The wall cracked.’	<i>agrietamiento</i>
<i>arrugar(se)</i> ‘wrinkle’	<i>El pantalón se arrugó.</i> ‘The trousers wrinkled.’	<i>arrugamiento</i>

Notice that all these nouns are interpreted in the same way as the sentences on the central column, and thus they cannot correspond to a transitive structure like (4):

- (4) *El niño arrugó la camisa.*  
 ‘The child wrinkle the shirt.’

Consider now the case of *secar* ‘to dry’, which may denote an event of drying something (5a), an event of drying oneself (5c), or an event of something drying by itself

(5e). The nominalized version, *secado*, allows only the first of the three readings, as the contrast between (5b) and (5d/f) shows: unlike *enloquecimiento*, *secado* can appear with agentive by-phrases:

- (5) a. *Juan secó las camisas.*  
 Juan dry<sub>PAST<sub>3</sub>SG</sub> the shirts  
 ‘Juan dried the shirts.’
- b. *El secado de las camisas (por parte de Juan)*  
 the nominalization of the shirts (by Juan)
- c. *Juan se secó (con una toalla).*  
 Juan SE dry<sub>PAST<sub>3</sub>SG</sub> (with a towel)  
 ‘Juan dried himself (with a towel).’
- d. \**El secado de Juan (con una toalla)*  
 the nominalization of Juan (with a towel)  
 Intended reading: ‘Juan’s drying of himself (with a towel)’
- e. *Las camisas se secaron (al sol).*  
 The shirts SE dry<sub>PAST<sub>3</sub>PL</sub> (to.the Sun)  
 ‘The shirts dried in the Sun.’
- f. \**El secado de las camisas (al sol)*  
 the nominalization of the shirts (to.the Sun)  
 Intended reading: ‘the shirts drying (by themselves) in the Sun’

The picture that emerges from these preliminary observations is the following: *do/da* nominals like *secado* (e.g. *lavado* ‘washing’, *retirada* ‘retreat’, *recogida* ‘collection’, etc.) pattern quite systematically with the “caused event” interpretation, whereas the nominals in *miento* such as *enloquecimiento* and similar ones (e.g. *abaratamiento* ‘becoming cheaper’, *enfriamiento* ‘cooling’, *agrietamiento* ‘cracking’, *arrugamiento* ‘becoming wrinkled’, etc.) force the self-caused reading.

In the next pages I develop a proposal in order to successfully account for this interpretive split among nominal types. The work is structured as follows: Section 2 introduces the theoretical assumptions that stem from a particular implementation of the various syntactic approaches to morphology and the architecture of the Grammar. These approaches (HALLE – MARANTZ 1993, BORER 2003, STARKE 2009) share the common assumption that meaning is compositionally derived from enriched syntactic structures, in a system where the information contained in lexical entries is kept to a minimum. Section 3 examines the distribution of nominals across verb classes, paying special attention to the structure of the underlying events, adopting Ramchand’s decompositional approach. A proposal is made concerning the syntactic specifications that have been illustrated. Finally, Section 4 contains the main conclusions.



## 2. Theoretical assumptions

The theoretical basis of my analysis is the nanosyntactic approach to the architecture of Grammar (STARKE 2009). I do not intend to review here the growing amount of nanosyntactic literature (see FÁBREGAS 2007, 2014, 2016, RAMCHAND 2008, MURIUNGI 2008, CAHA 2009, LUNDQUIST 2009, PANTCHEVA 2011, DÉKÁNY 2012, among others); I will focus instead on those aspects which are most relevant for my purposes.

As in other neo-constructionist models, Nanosyntax assumes that lexical insertion comes after syntax. The primitives of grammatical computation are features: these are the building blocks of syntax, and the output of those combinatorial operations will target an item from the lexical repertoire. Nanosyntax allows *multi-attachment*, i.e. insertion under non-terminal nodes. Crucially, and contrary to what is assumed in Distributed Morphology, there are no morphological operations happening after syntax. Thus, the only source of idiosyncrasies is the post-syntactic lexical repertoire of a language, acting as a filter on possible derivations.

From this theoretical perspective, nominalizations are complex syntactic objects consisting of a nominal head that selects complements with particular properties.<sup>3</sup> In the case of *miento* and *do/da* nominals, the complement consists of a hierarchical structure of functional heads corresponding to parts of an event-building domain in the syntax (RAMCHAND 2008): *Initiation* (init), *Process* (proc), and *Result* (res). These syntactic heads account for relations of causation and resultativity among subevents, building a structure of “lead to” embedding in the spirit of HALE – KEYSER (1993) and their *Event Composition Rule*.

Ramchand’s system “translates” the aspectual and thematic information of event types into hierarchical syntactic representations with regular and predictable semantic interpretation, as in (6) below (adapted from RAMCHAND 2008, 8). In the syntax, *InitP* introduces a causational (stative) predication, and it licenses an *initiator* in its Spec position. *ProcP* introduces a dynamic event licensing an entity undergoing the change, an *undergoer*, in its Spec position. Finally, *RespP* introduces a resultative (stative) predication and licenses an entity that holds a result state, a *resultee*, in its Spec position.

- (6) Dynamic event: [Proc]
- Caused dynamic event: [Init [Proc]]
- Dynamic event with result: [Proc [Res]]
- Cause dynamic event with result: [Init [Proc [Res]]]

<sup>3</sup> To some extent, it can be seen as a continuation of LIEBER’S (1980) idea of affixes as heads, and much subsequent work in generative grammar.

In her system, verbal roots carry two types of linguistically relevant information: 1. *category features* (init, proc, res), 2. *index features* to indicate whether the same DP occupies more than one Spec position (e.g.  $\text{init}_i, \text{proc}_i$ ). When this happens, the DPs are interpreted as co-referential.

Verb classes follow from different combinatorial possibilities of those features, and thematic information is derived from designated hierarchical positions: if a DP occupies both the Spec of  $\text{initP}$  and the Spec of  $\text{procP}$ , it will be interpreted as a thematic Actor; if it only occupies the Spec of  $\text{initP}$ , it will be interpreted as a thematic Cause.

Adopting a Ramchadian analysis of event structure in the syntax, my proposal for Spanish is based on the idea that the presence of Actors correlates with the absence of *miento* and the unavailability of self-caused readings in the corresponding nominalizations.

### 3. Analysis

#### 3.1 Testing for actorhood

In Ramchand's system there are no thematic roles as such: a DP in the specifier position of an  $\text{InitP}$  is systematically interpreted as *initiator* by the general semantic component, meaning "entity whose properties/behaviour lead to the process coming into being." Initiators are highly unspecified *per se*, given that definition. In principle, further conceptual distinctions among initiators (i.e. whether they are causers, agents, instruments, etc.) result from the lexical-encyclopedic content of verbs and the referential properties of DP arguments.

Nevertheless, RAMCHAND (2008) notes that for verbs in which the DP initiator and undergoer are coindexed (e.g.  $\text{eat} [\text{init}_i \text{proc}_i]$ ), the initiator of the event corresponds to a typical "Actor" or a "volitional Agent" as defined in the literature. Now, among the verbs classified as  $[\text{init}_i, \text{proc}_i]$  we find intransitive verbs like *silbar* 'to whistle' in (7):

- (7) *mientras el tren silbaba en la oscuridad, cercano ya a la estación de Pasajes*<sup>4</sup>  
'...while the train was whistling in the darkness, already near Pasaje's station'

If verbs like *silbar* identify  $[\text{init}_i, \text{proc}_i]$ , then according to Ramchand's reasoning *the train* in (7) must be an actual Actor, and that implies that not all arguments that are Actors are in turn animate, volitional Agents. Then what are they? I assume FOLLI-HARLEY'S (2008, 191) proposal that Actors or "proper initiators" are defined by their

4 Taken from the novel *Llegará tarde a Hendaya* by José María del Val, via the online Corpus de Referencia del Español Actual (CREA).

*teleological capability*: “the inherent qualities and abilities of an entity to participate in the eventuality denoted by the predicate”. For these authors, what distinguishes an Agent or Actor from a Causer is precisely its internal teleological capability of generating the event on their own, from start to finish. Causers (either animate or inanimate) “may trigger the initiation of an event, but do not exercise control over its unfolding, due to their teleological incapability” (FOLLI - HARLEY 2008, 201).

There are some standard tests that can be used to identify Actors across verb types: one is to see whether the verb can be modified by agent-oriented adverbs (e.g. *deliberately*) and some manner adverbs (e.g. *carefully*) which imply that the subject is in control of the event; another is the examination of what types of subjects are allowed for each verb (*human agent, instrument, causer*); a third one is the possibility of a pronominal agentive construction in their corresponding nominals, as in *su cierre de la campaña electoral* ‘his closing of the electoral campaign’. When examining different verbs, I take these tests into account since the notion of Actorhood turns out to be crucial in distinguishing nominal types.

### 3.2 The distribution of event nominals across verb classes

#### 3.2.1 Intransitives

Intransitive verbs denote activities or events that require a single participant, as *The boy jumped* or *The rose bloomed*. It has been generally accepted since PERLMUTTER (1978) and BURZIO (1981) that there are two classes of intransitives verbs with different syntactic configurations: unergatives and unaccusatives. From a syntactic perspective, I assume that the so-called unaccusative verbs lack an *init* projection (8):

- (8) *crecer* ‘to grow’ [proc]  
       *florecer* ‘to bloom’ [proc, res]<sup>5</sup>  
       *nacer* ‘to be born’ [proc]  
       *funcionar* ‘to function’ [proc]

As expected by the lack of *init*, the verbs in (8) cannot be combined with the agentive suffix *-dor* (*\*crecedor*, *\*florecedor*, *\*nacedor*, *\*funcionador*) and have no causative counterpart, no matter whether the initiator is an Actor or a Cause (9a-b).

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<sup>5</sup> An important note: the presence of ResP must be syntactically justified (FÁBREGAS 2016, 72). There may be verbs that imply a result conceptually (e.g. *destroy*) but not syntactically: *The army destroyed Aleppo for 3 years* cannot be interpreted as ‘Aleppo was in the state of being destroyed during those 3 years’ but rather that the process of destruction lasted 3 years. By contrast, *Some flowers only bloom for a single day* means that in that day there was a process of blooming and a resultant state of being “bloomed” that lasted almost 24 hours. In that case, the presence of a ResP is justified.

- (9) a. \**El técnico funcionó la máquina.*  
 the technician function<sub>PAST</sub> the machine  
 b. \**Las abundantes lluvias florecieron las rosas.*  
 the abundant rain<sub>PL</sub> bloom<sub>PAST</sub> the roses

The corresponding nominals are interpreted as self-caused (10). Interestingly enough, all these verbs nominalize with the affix *miento*:

- (10) *crecer* > *crecimiento*, *florecer* > *florecimiento*, *nacer* > *nacimiento*, *funcionar* > *funcionamiento*

Looking now at unergative verbs like *llorar* ‘to cry’ or *gritar* ‘to shout’, and at the so-called conflation verbs like *bailar* ‘to dance’, *jugar* ‘to play’ or *silbar* ‘to whistle’, all assumed to be specified as [init<sub>i</sub>, proc<sub>i</sub>], what we find is that *miento* cannot nominalize them.

- (11) *llorar* > \**lloramiento*  
*En el silencio oía el lloro de mi madre.*<sup>6</sup>  
 ‘In the silence I heard the crying of my mother.’
- (12) *gritar* > \**gritamiento*  
*Llegué a la clínica y oí un grito prolongado.*<sup>7</sup>  
 ‘I arrived at the clinic and heard a prolonged shout.’
- (13) *bailar* > \**bailamiento*  
*La fiesta comienza con el baile de un waltz de Strauss.*  
 ‘The party starts with the dancing of a waltz by Strauss.’
- (14) *jugar* > \**jugamiento*  
*Ganaron el juego tras la inteligente jugada de Mario.*  
 ‘They won the game after Mario’s intelligent move.’
- (15) *silbar* > \**silbamiento*  
*El silencio fue roto por el silbido de un turista.*  
 ‘The silence was broken by a tourist’s whistling.’

Finally, among intransitives, there are verbs of inherently directed motion or inherent direction such as *llegar* ‘to arrive’, *venir* ‘to come’, *salir* ‘to leave, to exit’, or *entrar* ‘to enter, to get in’. I assume, with Ramchand, that they are specified as [init<sub>i</sub>, proc<sub>i</sub>, res<sub>j</sub>]. They can appear with adverbs such as *cuidadosamente* ‘carefully’ or *con cuidado* ‘with care’, implying that there is a controller of the event.<sup>8</sup> While this is

6 Taken from the novel *Eran los días largos* by José Asenjo Sedano (via the CREA).

7 Taken from the novel *La Habana para un infante difunto* by Guillermo Cabrera Infante (via the CREA).

8 Antonio Fábregas (p.c.)



possible with verbs of inherent direction like *salir* ‘to leave’ in (16), it is not allowed with unaccusative verbs such as *crecer* ‘to grow’ in (17):

- (16) *Salió {cuidadosamente~con cuidado} para no despertar a su mujer.*  
‘(He) left carefully in order not to wake up his wife.’
- (17) \**La niña creció {cuidadosamente~con cuidado}.*  
‘The girl grew (up) carefully.’

The event nouns built on verbs of inherent direction are *do/da* nominals. Once again, *miento* is not allowed:

- (18) *llegar > llegada/\*llegamiento, venir > venida/\*venimiento, salir > salida/\*salimiento, entrar > entrada/\*entramiento*

### 3.2.2 The causative alternation

We have seen that unaccusatives nominalize in *miento*. Some of them enter the causative alternation<sup>9</sup>: as intransitives, they predicate a change of state undergone by some argument (*The boat sank*). As transitives, they predicate a caused change of state (*The enemy sank the boat*).

I assume minimally the following structure for verbs like “to sink”: [proc], and a null init head built on top of ProcP when these verbs are used transitively (see RAMCHAND 2008).

The corresponding nominal may appear in contexts with no external cause/agent, just as unaccusatives do (the following examples are taken from the CREA):

- (19) a. *el hundimiento de la moneda*  
literally: ‘the sinking of the currency’  
b. *el hundimiento de la URSS* ‘...of the USSR’  
c. *el hundimiento de una casa en Tàrrega* ‘...of a house in Tàrrega’

But, unlike unaccusatives (20), these verbs allow a second argument that is responsible for the unfolding of the event:

- (20) \**El funcionamiento de la máquina por la misma empresa que la había diseñado.*  
‘The functioning of the machine by the same company that had designed it.’
- (21) *El hundimiento del petrolero por la misma empresa que lo había construido.*  
‘The sinking of the oil tanker by the same company that had built it.’

<sup>9</sup> There is a vast amount of literature on this topic, from different perspectives, e.g. LEVIN (1993), PESETSKY (1995), PIÑÓN (2001), REINHART (2002), CHIERCHIA (2004), among many others. See SCHÄFER (2009) for a recent overview.

Crucially, however, when the *initP* is projected (21), there is no coindexation between the DP initiator and the DP undergoer: in these cases, initiators are not interpreted as Actors, and *miento* nominals are thus allowed. As I illustrate below, in fact these verbs do not pass the standard test for actorhood, as opposed to other verbs like *lavar* ‘to wash’. First, the insertion of an agent-oriented adverb like *deliberadamente* ‘deliberately’ in sentence (21), makes the sentence less acceptable or even bad as in (22):

- (22) ??*El hundimiento deliberado del petrolero por la misma empresa que lo había construido.*  
 ‘The deliberate sinking (i.e. scuttling) of the oil tanker by the same company that had built it.’

By contrast, the same adverb is attested in sentences with nominals coming from verbs like *lavar* ‘to wash’ or *retirar* ‘move away’, interpreted as if an implicit participant had not only initiated the event of washing or removing, but also controlling its unfolding<sup>10</sup>:

- (23) *El lavado deliberado de los tanques de almacenamiento.*<sup>11</sup>  
 ‘The deliberate washing of the storage tanks.’  
 (24) *La retirada deliberada de la escalera.*<sup>12</sup>  
 ‘The deliberate removal of the stairs.’

Second, consider the restriction on subjects: the class of *hundir(se)* allows a large range of subject types (25a), whereas *lavar(se)* and other verbs whose subjects are Actors do not:

- (25) a. {El capitán/una fuerte tormenta/un torpedo} hundió el barco.  
 ‘{The captain/a big storm/a torpedo} sank the boat.’  
 b. {Octavia /?la lavadora<sup>13</sup>/ ??la lluvia} lavó la ropa.  
 ‘{Octavia/the washing machine/the rain} washed the clothes.’

Consider the ungrammatical (26), in which the nominal *hundimiento* is introduced by a possessive pronoun interpreted agentively:

10 Further evidence for the existence of control is the fact that it is perfectly acceptable to say things like *lavar algo cuidadosamente* ‘to wash something carefully’, with a manner adverb.

11 Found online (<https://documents-dds.ny.un.org/doc/UNDOC/GEN/N10/212/89/PDF/N1021289.pdf?OpenElement>)

12 From the e-book *¿Qué fue del buen samaritano? Naciones ricas, políticas pobres*, by Ha-Jong Chaan (2008).

13 Good if understood as controlling the process of washing. This may be an “animacy effect” in the sense of FOLLI – HARLEY (2008).

- (26) \**El activista de Greenpeace aseguró que no se arrepentía de su hundimiento del petrolero.*  
 Intended reading: ‘The Greenpeace activist claimed that he did not regret having sunk the oil tanker.’

This type of pronominal agentive construction, *su hundimiento de...* ‘his sinking of...’, is also unattested in corpora. Interestingly, it is acceptable when combined with other nominals, *lavado* being one of them. Note that none of these is formed with *miento*:

- (27) *su lavado de dinero* ‘his<sup>14</sup> washing (i.e. laundering) of money’, *su cierre de la campaña electoral* ‘his closing of the electoral campaign’

Therefore, the presence of Actors correlates with the absence of *miento*. Additionally, it correlates with the absence of reflexive/self-caused readings in nominals. Consider (28-31) below:

- (28) *Juan se lavó.* > \**el lavado de Juan*  
 Juan SE wash<sub>PAST</sub> the (self)washing of Juan  
 ‘Juan washed himself.’
- (29) *Juan se movió.* > \**el movimiento de Juan*  
 Juan SE move<sub>PAST</sub> the (self)movement of Juan  
 ‘Juan moved (himself).’
- (30) (Context: Anna put one shirt outside. It was sunny and it dried in the Sun.)  
*La camisa se secó al sol.* > \**el secado de una camisa al sol*  
 The shirt SE dried to.the Sun the drying of a shirt to.the Sun  
 ‘the drying of a shirt in the Sun’
- (31) (Context: a happening reported in a newspaper)  
*Se hundió una casa en Tàrrega.* > \**el hundimiento de una casa en Tàrrega*  
 SE sank a house in Tàrrega the sinking of a house in Tàrrega  
 ‘the collapse of house in Tàrrega’

The contrasts have to do with the possibility of having a reflexive reading<sup>15</sup> in nominals corresponding to verbs that do exhibit such reading. While this is possible with *movimiento* (29) and *hundimiento* in (31), the reflexive interpretation is excluded with *lavado* (28) and *secado* in (30). For Swedish, LUNDQUIST develops the following hypothesis: eventive nominalizations can be reflexive, but only when the

14 I use *his* as a default form, but *su* can mean ‘his’, ‘her’ or ‘their’, and even a formal ‘you’ (*usted*).

15 The term “reflexive” has been used in the literature mostly to refer to a particular kind of reflexivity in which  $X_i$  initiates an action that the same  $X_i$  receives. Here I adopt LUNDQUIST (2009, 19) definition of reflexive predicate as one in which “the participants of the subevents are co-referential”.

underlying verb identifies a [ $\text{proc}_i$ ,  $\text{res}_i$ ] sequence<sup>16</sup>. He distinguishes two types of reflexive predicates: the ones which are “lexically reflexives” (32), where the co-referentiality comes from the verbal entry, and the ones which are “syntactically reflexive” (33), in which an overt reflexive marker (*sig* in Swedish) triggers co-referentiality between two otherwise distinct arguments. This marker is taken to lexicalize a head in the verbal functional sequence.

(32) *försvinna* ‘disappear’ [ $\text{proc}_i$ ,  $\text{res}_i$ ]

(33) *samla* ‘collect’ (*sig*- [ $\text{proc}_i$ ,  $\text{res}_i$ ])

Lundquist proposes that nominalizations in Swedish can be interpreted reflexively, but only when the underlying verb is of the “lexically reflexive” type. This is illustrated in (34) with *försvinna* ‘to disappear’ and its corresponding nominal *försvinnande*, whose structure is depicted in (35).

(34) *Artistens plötsliga försvinnande förvånade fansen*

‘the artist’s sudden disappearing/disappearance surprised the fans’

(35) *försvinnande* [Nom [ $\text{proc}_i$  [ $\text{res}_i$ ]]]

‘The deliberate removal of the stairs.’

By contrast, when the underlying verb shows no co-reference (e.g. *samla* in (33)), its nominal has a non-reflexive interpretation. This is presumably because at the point where the verb is nominalized, the reflexive marker has not yet been merged and therefore it cannot influence the co-reference relations within the nominal constituent.

(36) *samling* ([Nom [ $\text{proc}_i$  [ $\text{res}_i$ ]])])

‘collection’

Taking into account the Spanish data that we have just presented, it seems that LUNDQUIST’S hypothesis for Swedish correctly predicts the Spanish facts as well.

Table 2 below shows the distribution of nominals across verb classes based on the type of first syntax that the underlying verbal structure identifies.<sup>17</sup> The con-

16 Or (by default) when it identifies just one projection, either [ $\text{Proc}$ ] or [ $\text{Res}$ ]

17 An anonymous reviewer notes that not all [ $\text{init}$ ,  $\text{proc}_i$ ] verbs have a corresponding *do/da* nominal: e.g. *llorar* - n. *lloro* (and not \**llorada/do*). Nevertheless, these nouns that I call “quema-type nominals”, such as *grito* ‘scream’, *cierre* ‘closing’, *quema* ‘burning’, *busca* ‘search’, among many others, pattern quite systematically with *do/da* nominals in distributional and interpretive terms. For instance, they appear in pronominal agentive constructions as in *Su cierre de la campaña electoral* ‘His closing of the electoral campaign’. The fact that we do not get pairs like *llorada/do-lloro* may be because at the point where the speaker checks his lexical repertoire, the existence of a form like *lloro* or *cierre* automatically blocks the otherwise expected *do/da* form.



figurational analysis assumed in this work is supported by the empirical facts that I have just reviewed. The nominal structures are given next.

**Tab. 2 Distribution of nominals across verb classes in Spanish**

First-phase syntax	Verbs		Nominal
	<i>intransitives</i>	<i>alternating</i>	
[ <i>init<sub>i</sub></i> , <i>proc<sub>i</sub></i> , <i>res<sub>i</sub></i> ]	<i>llegar</i> ‘to arrive’ <i>salir</i> ‘to exit’ <i>entrar</i> ‘to enter’		* <i>miento do/da</i>
[ <i>init<sub>i</sub></i> , <i>proc<sub>i</sub></i> ]	<i>llorar</i> ‘to cry’ <i>gritar</i> ‘to shout’	<i>lavar(se)</i> ‘to wash’ <i>retirar(se)</i> ‘to retreat’	
[ <i>proc</i> ]	<i>crecer</i> ‘to grow’ <i>funcionar</i> ‘to function’	<i>mover(se)</i> ‘to move’ <i>arrugar(se)</i> ‘to wrinkle’	<i>miento do/da</i>
[ <i>proc<sub>i</sub></i> , <i>res<sub>i</sub></i> ]	<i>florecer</i> ‘to bloom’	<i>hundir(se)</i> ‘to sink’	

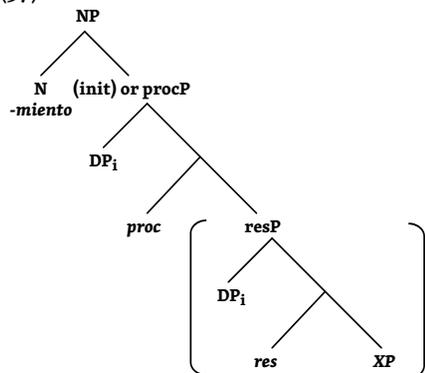
### 3.3 The structure of *miento* and *do/da* nominals

The following two structures reflect the different properties that a verb must have in order to be selected by a particular affix, *miento* or *do/da*. The analysis builds on work by FÁBREGAS (2016) who took into account the aspectual properties of the internal argument to distinguish between these two types of nominals.

First, *miento* selects verbs specified as [*proc<sub>i</sub>*, *res<sub>i</sub>*] or [*proc*], and those which accept a null *init* head<sup>18</sup>. Following LUNDQUIST (2009), it is precisely by virtue of such feature specification that these nominals can be interpreted reflexively. Crucially, *miento* do not select verbs [*init<sub>i</sub>*, *proc<sub>i</sub>*].

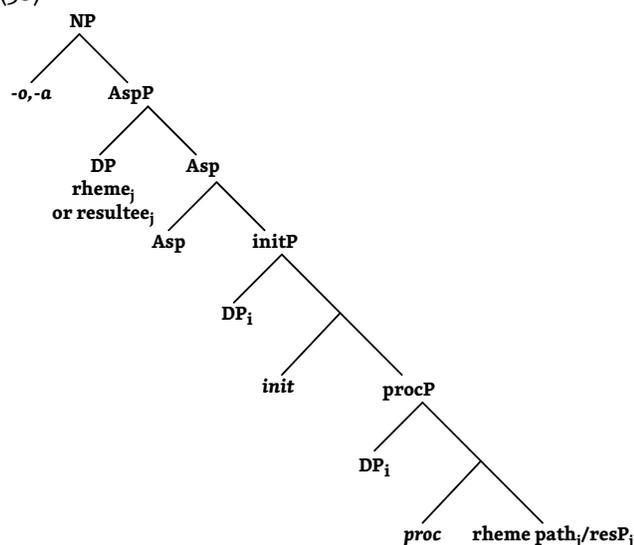
18 An anonymous reviewer asks what would go wrong if I assume that *miento* selects for ProcP, and *do/da* selects for InitP. The problem is that such analysis cannot account for the contrasts illustrated in (20-21): unlike *funcionamiento* (related to a standard unaccusative verb), *hundimiento* allows an *init* argument that is nevertheless of a different nature than that of *lavado*, for instance.

(37)



By contrast, *do/da* selects verbs specified as  $[init_i, proc_i]$ , preventing *miento* from selecting it and disallowing reflexive readings in the corresponding nominalizations from transitive verbs (*lavado* ‘the washing’, *recogida* ‘the collection’, *retirada* ‘the retreat’, etc.). I assume, with FÁBREGAS (2016), that the selected verbs have rheme path objects (Comp, procP). AspP, the highest projection of the event-building domain, acquires nominal features by entering in an Agree relationship with the rheme path. It is only in this case that a participle can be “nominal”. For verbs of inherent direction, intransitives like *llegada* ‘arrival’, *venida* ‘the coming’, *salida* ‘the leaving’ etc., I assume that AspP may also enter in an Agree relation with the DP resultee in Spec, ResP.

(38)



## 4. Conclusion

In this contribution I have examined the distribution and interpretation of two types of event nominals in Spanish, those formed with *miento* and those form with the participial form *do/da*. Building on previous Nanosyntactic literature (especially LUNDQUIST 2008, 2009 and FÁBREGAS 2016), I have put forward a configurational analysis that not only accounts for the different properties that these nominals exhibit with respect to their transitivity and interpretive possibilities, but also predicts the non-occurrence of forms which are actually bad in Spanish, such as \**lavamiento*, \**funcionado*, etc.

The main findings resulted from the notion of Actorhood, which syntactically correspond to a co-indexation between a DP initiator and a DP undergoer in RAMCHAND'S terms: first, if a verb identifies a sequence [*init*<sub>i</sub>, *proc*<sub>i</sub>], its combination with *miento* is ruled out; second, reflexive readings of these nominals arise either from intransitive-only verbs, or from alternating verbs not specified as [*init*<sub>i</sub>, *proc*<sub>i</sub>].

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