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## Recasting agent exclusivity in passive nominals

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This paper studies the thematic restrictions on *by*-phrases in passive nominals, focusing on Spanish. I argue that Spanish passive nominals are not subject to the agent exclusivity effect, as such nominals can have *by*-phrases introducing experiencers and possessors. The real requirement, I contend, is that the external argument denote a human entity. I further show that Romanian passive nominals behave in the same fashion. I discuss apparent cases of inanimate *by*-phrases in Spanish and argue that they are actually instances of causal adjuncts, and thus are not true external arguments. My account makes the prediction that, crosslinguistically, passive nominalizations do not discriminate against non-agents: rather, agent exclusivity, when found, is a side effect of the interplay between aspectual restrictions and the requirement that the external argument denote a human entity.

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## 1 Introduction

In the literature on deverbal nominalizations, it has often been observed that the expression of the external argument is restricted with respect to its active verbal counterparts. This has been labeled in the literature as the “Agent Exclusivity” effect (see Lakoff 1970; Grimshaw 1990; Pesetsky 1995; Marantz 1997; Harley & Noyer 2000 for English; Varela 2012 for Spanish; Ahdout 2020 for Hebrew). The English examples in (1), adapted from Harley & Noyer (2000) and Ahdout (2020), illustrate this effect. While the active verbal sentence in (1-a) can have agentive and non-agentive subjects, the corresponding nominal can only have agentive subjects introduced via a *by*-phrase (e.g. (1-b)); a non-agentive external argument is barred from the nominal (e.g. (1-c)).<sup>1</sup>

- (1) a. The cold war/The Allies separated East and West Germany  
 b. The separation of East and West Germany by The Allies  
 c. The separation of East and West Germany #by the cold war

Along these lines, it has been observed for English that verbs whose external arguments do not have an Agent role cannot have a *by*-phrase when nominalized. That is the case for Recipients and Experiencers, as the examples in (2) and (3) show (examples retrieved from Bruening 2013: 1). The received idea is thus that *by*-phrases in nominals can only bear an Agent role (or an Affector role, as in Fox & Grodzinsky 1998).

- (2) a. the receipt of the present (\*by my mother-in-law)  
 b. the sight (\*by the investigators) of the damage  
 (Culicover & Jackendoff 2005: (18b), (19b))
- (3) a. \*the fear of Harry by John  
 b. \*the sense of danger by John  
 c. \*the respect for Mary by John  
 (Jackendoff 1977: 92–93, attributed to Hornstein)

Bruening (2013), however, has challenged this claim for English. The author provides many examples from the internet showing that English nominals can indeed have *by*-phrases introducing a variety of roles, such as Possessors (e.g. (4)) and Experiencers (e.g. (5)). English *by*-phrases in nominals, the author concludes, are just like those in verbal passives in that they also inherit whichever thematic role the external argument of the base verb has.

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<sup>1</sup> The same effect is found with prenominal genitives in English (e.g. (i)). I leave aside prenominal genitives in this work, as I will be focusing on *by*-phrases. Also, Spanish, the main language under focus here, does not have prenominal genitives.

- (i) a. The Allies' separation of East and West Germany  
 b. #The cold war's separation of East and West Germany

- (4) a. ... after the date of receipt of the letter by the GDS...  
<http://www.hedna.org/library/procedures.cfm>
- b. The start date must be at least ten days after the receipt of the form by Gift Processing.  
<https://devar.washington.edu/departments/gpa/AdminPolicy.asp>
- (5) a. Prior knowledge by the physician of a melancholic patient's tendency to commit suicide  
<http://cat.inist.fr/?aModele1/4afficheN&cpsidt1/47696177>
- b. ...to show there was prior knowledge by Federal and OK state law enforcement personnel of the OKC bombing.  
<http://www.newswithviews.com/Briley/Patrick32.htm>

With this background in mind, this paper focuses on thematic restrictions of *by*-phrases in Spanish nominalizations, in the construction that Picallo (1999) labels *passive nominals*: a deverbal transitive nominalization followed by a PP headed by *de* 'of' that introduces the internal argument of the base verb, optionally followed by a *por* (*parte de*) 'by (part of)' phrase that introduces the external argument. I provide examples in (6), from Picallo (1999: 373).<sup>2</sup>

- (6) a. La extinción del fuego (por los bomberos).  
 'The extinction of the fire (by the firefighters).'
- b. El hundimiento del yate (por parte de un delincuente).  
 'The sinking of the yacht (by a criminal).'
- c. La industrialización de la región (por parte del gobierno).  
 'The industrialization of the region (by the government).'

Spanish is a language that has also been claimed to show the agent exclusivity effect in passive nominals (Varela 2012). On the other hand, Alexiadou et al. (2013a;b; 2014) have argued, discussing English and other languages, that this restriction in Spanish is best characterized as a direct participation effect. My goal is to argue against both of these proposals, showing that the restriction in Spanish is actually one of human exclusivity, i.e. the requirement that the DP introduced by the *por* (*parte de*)-phrase denotes a human entity. I refer to this restriction as the *Human Exclusivity Effect*, defined as in (7).

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<sup>2</sup> But see López (2018), for discussion of a set of passive deverbal nominals where the internal argument is not introduced by *de*, but by the particle *a*, which López analyses as nominal direct object marking (*n*-DOM). The author argues that *n*-DOM is only available with nominals that do not entail a change of state, as is the case of *ataque* 'attack' in (i). I will not be discussing *n*-DOM nominals in this paper.

(i) el ataque a los fugitivos por la policía  
 the attack DOM the fugitives by the police  
 'the attack on the fugitives by the police'

- (7) Human Exclusivity Effect (HEE): Only external arguments that denote human entities can be overtly expressed in nominal passives.

I further contend that *por (parte de)*-phrases do not assign a thematic role of Agent or Affecter by themselves (contra Varela 2012 for Spanish; see also Fox & Grodzinsky 1998 for English). Rather, they introduce the external argument of the underlying verbal predicate, whose thematic interpretation will be the same as in other morphosyntactic contexts (e.g. verbal passive or active sentences), along the lines of what Bruening (2013) proposes for English. I also provide data from Romanian nominal passives, showing that the HEE is also operative in this language.

This paper is structured as follows. In Section 2, I present the direct participation effects discussed in Sichel (2010) and extended by Alexiadou et al. (2013a;b; 2014), as well as their theoretical proposals. I show that, in Spanish, direct participants are only possible if they denote human entities: the purported cases of *by*-phrases with inanimates are actually instances of causal adjuncts, not of external arguments. In Section 3, I discuss Varela's (2012) arguments for an agent exclusivity restriction in Spanish nominals and I present arguments challenging her view, showing that Spanish can also have Experiencers and Possessors in *by*-phrases. I further introduce Romanian data that aligns with the facts observed for Spanish. Section 4 presents my theoretical proposal to account for the data presented so far. Section 5 concludes the paper.

## 2 On direct participation

### 2.1 Previous accounts

As I discussed in the introduction, it is the received view that English nominal passives only allow agent-denoting *by*-phrases (e.g. (1)). Sichel (2010) challenges this claim, however, arguing that the real restriction lies in *direct participation* (henceforth Direct Participation Effect, DPE for short, after Alexiadou et al. 2013a;b; 2014).

- (8) The Direct Participation Effect (DPE)  
Only external arguments that directly bring about the event and are co-temporal with its unfolding (i.e. direct participants) can be expressed in nominal passives.

For Sichel, this includes human agents, but also inanimate causers that have inherent properties that allow them to directly cause the eventuality denoted by the nominal. Such is the case in the examples from (9), where a *by*-phrase is allowed because *the hurricane* can be interpreted as a force that brings about destruction or devastation. On the other hand, Sichel discusses, the *by*-phrase is disallowed in the nominal if it is construed as a mere causing event, rather than as the force that brings about the eventuality denoted by the nominal. That would be the case in (10-b), where the *by*-phrase is disallowed because *the approaching hurricane* does not bring about

the justification event, even if it is a direct cause thereof; a justification event can only be brought about by a human entity such as *the authorities* in (10-d). The same applies to the examples in (11), where a causing event such as *the results* are not licit in a *by*-phrase.<sup>3,4</sup>

- (9) a. The hurricane destroyed all the crops  
 b. The destruction of our crops by the hurricane  
 c. The hurricane devastated ten coastal communities in Nicaragua  
 d. the devastation of ten coastal communities by the hurricane
- (10) a. The approaching hurricane justified the abrupt evacuation of the inhabitants  
 b. #the justification of the abrupt evacuation of the inhabitants by the hurricane  
 c. The authorities justified the rapid evacuation of the inhabitants  
 d. the justification of the rapid evacuation of the inhabitants by the authorities
- (11) a. The results verified the initial diagnosis  
 b. #the verification of the initial diagnosis by the results  
 c. the verification of the initial diagnosis by the expert

To account for these facts, Sichel (2010) proposes that derived nominals are restricted to host simple (i.e. single) events. Sichel discusses that there can be two types of complex events: non co-temporal and co-temporal, depending on whether the two eventualities that compose the event overlap temporally or not. When a complex event is co-temporal, it is represented in the grammar as a simple event, following the conditions on event identification in (12) (from Levin & Rappaport-Hovav 1999; 2004; Rappaport-Hovav & Levin 2001). Sichel proposes the condition in (13-a) and the corollary in (13-b) to capture the relation between the external argument and the unfolding event in derived nominals, i.e. the co-temporality restriction.

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<sup>3</sup> It is worth noting the similarities between the notion of direct participant as defined by Sichel (2013) and that of Agent in Folli & Harley (2008). The latter authors define an external argument as an Agent with respect to *teleological capability*, i.e. whether such entity has the inherent properties to bring about the eventuality described by the verb. That includes humans but also inanimates like the hurricane in (10-a), or the subjects of the unergative verbs in (i).

- (i) a. The train whistled.  
 b. The phone rang.

<sup>4</sup> Sichel makes a point of distinguishing between a direct cause and a direct participant, drawing on Wolff's (2003) definition of direct cause as event proximity, i.e. as the event in the causal chain that is closest to the event denoted by the predicate. Sichel argues that direct causers do not require temporal co-extensivity with the event, but direct participants do. Alexiadou et al. (2013b) elaborate on this further, drawing on Wolff's (2003) distinction between mediated and unmediated direct causation. Mediated direct causation takes place when a direct causer cannot bring about the event without the participation of an intermediate causer (as is the case with *the results* in (11-a)). Unmediated direct causation, on the other hand, applies to causers that directly cause the event, be it by direct contact when there is a physical change involved or by lack of an intermediate causer in the case of non-physical changes. This latter type of causation would correspond to a direct participant in Alexiadou et al.'s (2013b) view.

## (12) Conditions on event identification

- I. The sub-events must have the same location and are necessarily temporally dependent. To be identical, two events must have the same spatial and temporal properties.
- II. One sub-event must have a property that serves to measure out that sub-event in time; this property is predicated of an entity that is necessarily a participant in both sub-events.

- (13) a. If a simple event includes an external argument, the participation of the argument is co-temporal with the initiation of the event.
- b. Corollary: When the participation of the external argument is not co-temporal, the event is a complex event.

Building on Sichel (2010), Alexiadou et al. (2013a;b; 2014) further identify the DPE in two more languages: Spanish and Romanian. The DPE for Spanish can be observed in (14), adapted from Sichel's examples in (10). The authors claim that the *por*-phrase in (14-b) is ungrammatical because the hurricane is not a direct participant in the event.

- (14) a. El huracán justificó la evacuación de los habitantes  
the hurricane justified the evacuation of the inhabitants
- b. #La justificación de la evacuación de los habitantes por el huracán  
the justification of the evacuation of the inhabitants by the hurricane
- c. El huracán destruyó nuestros cultivos  
the hurricane destroyed our crops
- d. La destrucción de nuestros cultivos por el huracán  
the destruction of our crops by the hurricane

Another language that Alexiadou et al. (2013a) claim shows the DPE in nominalizations is Romanian. For these authors, (15-a) and (15-c) are degraded because the external argument, introduced by the complex preposition *de către*, is not a direct participant.

- (15) a. #schimbarea planurilor de weekend de către vremea rea  
changing plans.Gen of weekend by to weather bad
- b. schimbarea poziției pietrelor de către vant  
changing position stones.Gen by to wind
- c. #distrugerea lui Amy Winehouse de către alcool  
destruction of A. W. by to alcohol
- d. distrugerea recoltei de către uraganul puternic/insecticide  
destruction crops by to hurricane.the strong/insecticides

On the other hand, Alexiadou et al. (2013a) point out that some languages do not show the DPE at all. These are Greek, German and French. In the examples below, the results of the test are an indirect participant and yet all the examples below are perfectly grammatical.

- (16) I epivevosi tis arhikis diagnosis apo/me ta apotelesmata tis eksetasis  
‘The verification of the initial diagnosis by the results of the test’
- (17) Die Bestätigung der Diagnose durch die Ergebnisse des Tests  
‘The confirmation of the diagnosis by the results of the test’
- (18) La vérification du diagnostic initial par les résultats du test  
‘The verification of the initial diagnosis by the results of the test’

Alexiadou et al. (2013a) further note other constructions that have an agent exclusivity effect. These are nominalized infinitives in Spanish and in German, as well as nominalizations from object-experiencer psychological verbs in English.

- (19) a. El justificar las autoridades la evacuación  
‘The authorities’ justifying the evacuation’  
b. El destruir los soldados la ciudad  
‘The soldiers’ destroying the city’  
c. #El justificar el huracán la evacuación  
‘The hurricane’s justifying the evacuation’  
d. #El destruir el huracán el puente  
‘The hurricane’s destroying the bridge’
- (20) a. Um ein Zerstören der Stadt durch die Soldaten zu verhindern  
‘To prevent a destruction of the city by the soldiers’  
b. #Um ein Zerstören der Stadt durch den Sturm zu verhindern  
‘To prevent a destruction of the city by the storm’
- (21) a. Mary/the event annoyed/amused/embarrassed the kids  
b. #The event’ s annoyance/amusement/embarrassment of the kids  
c. ?Mary’s deliberate annoyance/amusement/embarrassment of the kids

Alexiadou et al. (2013b) reject Sichel’s analysis of these effects in terms of event complexity, on the basis that some nominalizations that have more complex verbal structure (e.g. German nominal infinitives) show even more restrictions with respect to the expression of the external argument, namely agent exclusivity. Instead, Alexiadou et al. (2013a; 2014) propose that these restrictions have two main sources: i) the type of preposition involved (e.g. Romanian *de către*,

which shows the same restrictions in verbal passives); ii) the syntax-semantics of the underlying verbal predicate.

With respect to the latter, the authors assume a verbal decomposition in which the external argument is introduced by a projection they call v-External Argument (v-EA), as in (22). v-EA, in turn, comes in three different flavors, depending on the theta role they assign to the external argument (e.g. (23)). These thematic roles are in a subset relation ( $i \subset (ii \subset iii)$ ), meaning that an agent also qualifies as a direct or indirect participant and a direct participant also qualifies as an indirect participant.

(22)  $[_{v-EA} DP_{subject} v-EA [_{vP} v [ \sqrt{\text{open}} DP_{object} ]]]$

(23) Typology of v-EA

- i) v-EA-indirect participant
- ii) v-EA-direct participant
- iii) v-EA-agent

The authors further claim that nominalizations that contain an external argument are built via heads that they take to belong to a general family of Voice heads, their commonality being that they introduce diathesis alternations. These nominalizing Voice heads differ in their selectional restrictions: some may select for v-EA-agent (e.g. German and Spanish infinitival nominals or English *-ing* nominals), others may select for v-EA-direct participant (e.g. English *-ation* nominals) and others may select for v-EA-indirect participant (e.g. Greek, German and French). This would derive the typology of external argument restrictions in nominalizations both within and across languages.

## 2.2 Critical assessment

As it turns out, *por*-phrases introducing inanimate entities are quite degraded in Spanish passive nominals as direct participants.<sup>5</sup> The examples in (24) illustrate this point. The relevant (and most salient) context in (24-a) is one in which the facade of a building collapsed and crushed two bystanders. Even though it is clearly a direct participant per the definition in (8), the addition of the external argument degrades the construction. In (24-b), we have a reading in which a fire extinguisher is attached to a wall and it starts to crack said wall from its own weight. Again, despite it being another clear instance of direct participation, the *por*-phrase in the derived nominal is degraded. The same situation holds for (24-c): despite the fact that the river is a direct participant, the passive nominal does not accept its introduction as an external argument. The examples in

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<sup>5</sup> A note is in order: So far I have been talking indistinctly about *por/ por parte de*-phrases introducing human participants, who allow both the single *por* and the phrasal *por parte de* prepositions. In this section I will be mostly discussing inanimate entities, which can only be introduced by the single preposition *por*: the *por parte de* prepositional complex is restricted to human entities.



(25) show that these direct participants can indeed be external arguments in the verbal active counterparts of the nominalizations in (24).

- (24) a. El aplastamiento de dos transeúntes (#por la fachada)  
the squashing of two bystanders (by the facade).  
b. El agrietamiento de la pared (#por el extintor)  
the cracking of the wall by the fire.extinguisher  
c. La inundación de la aldea (#por el río)  
the flooding of the village by the river
- (25) a. La fachada aplastó a los transeúntes.  
'The facade squashed the bystanders.'  
b. El extintor agrietó la pared.  
'The fire extinguisher cracked the wall.'  
c. El río inundó la aldea.  
'The river flooded the village.'

This states of affairs stands in contrast to *por (parte de)*-phrases with human entities. As we saw in the examples in (6), repeated below, human entities are perfectly fine in Spanish passive nominals.

- (6) a. La extinción del fuego (por los bomberos).  
'The extinction of the fire (by the firefighters).'
- b. El hundimiento del yate (por parte de un delincuente).  
'The sinking of the yacht (by a criminal).'
- c. La industrialización de la región (por parte del gobierno).  
'The industrialization of the region (by the government).'

My proposal is that only human-denoting external arguments are licit in Spanish nominal passives.<sup>6</sup> I call this restriction the Human Exclusivity Effect, repeated below from (7). When

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<sup>6</sup> An anonymous reviewer mentions that, in other constructions sensitive to human-denoting entities, such as Differential Object Marking (DOM), nouns like *gobierno* 'government' in (6-c) show variation in DOM, as (i-a) shows. I think this is due to the fact that *gobierno* can be interpreted as either a legal system (i.e. not human and therefore no DOM) or a collective noun comprised of humans (in which case, we have DOM). This is a frequent phenomenon that can be also observed in *por*-phrases in passive nominals. For instance, whereas *Parlamento* 'Parliament' refers to a building, it can easily be personified to refer collectively to Members of Parliament, in which case, as expected, it is acceptable in a *por*-phrase in a passive nominal (i-b).

- (i) a. María odia (a) este gobierno.  
María hates DOM this government  
'María hates this government.'
- b. La aprobación de la ley por parte del Parlamento.  
the passing of the law by part of.the Parliament  
'The passing of the law by the Parliament.'

non-human entities (and event-denoting ones in particular) are introduced in *por*-phrases in Spanish nominal passives, they function as causal adjuncts, not external arguments. My main supporting arguments come from the availability of *por*-phrases with inanimate entities in unaccusative, anticausative and impersonal contexts (where no external argument is possible) and the co-occurrence of *por*-phrases within the same nominal clause.

- (7) Human Exclusivity Effect (HEE): Only external arguments that denote human entities can be overtly expressed in nominal passives.

The issue here is that *por*-phrases can have two similar but distinct functions in Spanish. One of these possible functions is introducing the external argument in passive constructions. This is what is generally referred to as *by*-phrases in the literature (a *complemento agente* ‘agent complement’ in traditional grammar terminology), and these are the ones I argue are subject to the HEE. The second role, which is the one at work when we have licit *por*-phrases introducing non-human entities in Spanish passives, is to express the cause of a given eventuality – but crucially, it is not an external argument. This is a causal adjunct, known as a *complemento circunstancial de causa* ‘causal circumstantial complement’ in Spanish traditional grammar.

These two syntactic functions are easily detectable in languages which make a morphological distinction between the two. Such is the case of English, which uses *by* to introduce external arguments and *from/ through* to introduce causal adjuncts, as (26) shows.<sup>7</sup>

- (26) a. The prisoner was released *by* the police.  
 b. The sidewalk was warm *from* the sun. (From Copley & Harley 2015: 140)

Despite the lack of overt morphological distinction, there are many diagnostics to probe for these two distinct *por*-phrases in Spanish. As they perform different syntactic functions, they can co-occur in the same clause. Such is the example in (27), where the *por*-phrase *por los tribunales militares* ‘by the military courts’ is the external argument of the predicate *condenados* ‘convicted’,

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<sup>7</sup> Grimshaw (1990) notes that English has a *by*-phrase that does not behave like an external argument, but rather as an adjunct expressing means. This adjunct can co-occur with a true external argument (e.g. (i-a)). These can appear in active sentences (e.g. (i-a)) and co-occur with true argumental *by*-phrases (e.g. (i-b)), something that cannot happen with two argumental *by*-phrases (e.g. (i-c)). These non-argumental *by*-phrases appear in passive nominals too, where they also can co-occur with external arguments (e.g. (ii)). I leave aside a thorough comparison of non-argumental English *by*-phrases and Spanish *por*-phrases for future work.

- (i) a. They exhausted the country’s resources *by* indiscriminate mining.  
 b. The country’s resources were exhausted *by* the government *by* indiscriminate mining.  
 c. \*The country’s resources were exhausted *by* the government *by* the big corporations.  
 (From Grimshaw 1990: 139–40)
- (ii) a. The machine’s agitation of the soap solution *by* a/its rotary action  
 b. The agitation of the soap solution *by* the machine *by* its rotary action. (From Grimshaw 1990: 139–40)

whereas the phrase *por la insurrección de Asturias* ‘due to/ because of the Asturias insurrection’ is a causal adjunct that expresses the cause of the conviction.

- (27) El 3 de abril de 1935, los tres ministros de la CEDA dimitieron por la  
 the 3 of April of 1935, the three ministers of the CEDA resigned over the  
 conmutación de la pena de muerte a veinte condenados por los tribunales  
 commute of the penalty of death to twenty convicted by the courts  
 militares por la insurrección de Asturias.  
 military due.to the insurrection of Asturias  
 ‘On April 3, 1935, three CEDA ministers resigned over the death penalty forgiveness to  
 twenty prisoners convicted by the military courts because of the insurrection in Asturias.’  
 (From *Breve historia de España en el Siglo XX* (2022), by Julián Casanova and Carlos Gil)

This can also be replicated for Picallo’s original examples from (6). As we can see in (28), we can add a *por*-phrase expressing an indirect cause, i.e. more distant in the causal chain than the external argument. Thus, in (28-a), the improvement of the weather conditions enables the firefighters to put out the fire. In (28-b), the pressure of the boss makes the criminal sink the yacht. In (28-c), orders from Brussels make the government industrialize a given region.

- (28) a. La extinción del fuego por los bomberos por la mejora de las  
 the extinction of.the fire by the firefighters due.to the improvement of the  
 condiciones climáticas.  
 conditions climatic  
 ‘The extinction of the fire by the firefighters thanks to the improvement of the weather  
 conditions.’
- b. El hundimiento del yate por parte del delincuente por las presiones  
 the sinking of.the yacht by part of.the criminal due.to the pressure  
 de su jefe.  
 of his boss  
 ‘The sinking of the yacht by the criminal due to his boss’ pressure.’
- c. La industrialización de la región por parte del gobierno por órdenes de  
 the industrialization of the region by part of.the government by orders of  
 Bruselas.  
 Brussels  
 ‘The industrialization of the region (by the government).’

Crucially, these *por*-phrases introducing indirect causes do not make good subjects in the active verbal counterparts of the nominal, whereas those *por (parte de)*-phrases introducing a direct participant are perfectly fine as subjects, as the examples in (29) show. This suggests that, indeed,

the former are causal adjuncts of the eventuality, whereas the latter are true external arguments of the verb.

- (29) a. {#La mejora de las condiciones climáticas/ los bomberos} extinguió/  
 the improvement of the conditions climatic the firefighters extinguished.SG  
 extinguieron el fuego.  
 extinguished.PL the fire
- b. {#Las presiones de su jefe/ el delincuente} hundieron/ hundió el yate.  
 the pressures of his boss the criminal sankSG sankPL the yacht
- c. {#Las órdenes de Bruselas/ el gobierno} industrializaron/ industrializó  
 the orders of Brussels the government industrialized.PL industrialized.SG  
 la región.  
 the region

Analyzed more closely, the semantic commonality of these causal adjuncts seems to be that they denote causing events, rather than causing entities/participants. It holds for the examples in (28) as well as for (27) (*la insurrección de Asturias* ‘the insurrection of Asturias’ denotes an event). Going back to the discussion of the examples in (24), I note that when the external argument denotes a causing event, rather than a causing entity (a direct participant in this case), the *por*-phrase becomes perfectly grammatical, as the examples in (30) show. Note that this is, at first sight, precisely the opposite of what Sichel observes for *by*-phrases in English nominals, which are disallowed if the entity they introduce is interpreted as a causing event, and not as a direct participant. My claim is that these causing events in (30) are in fact being introduced as causal adjuncts, not as external arguments.

- (30) a. El aplastamiento de dos transeúntes (por el derrumbamiento de la fachada)  
 the squashing of two bystanders from the collapse of the facade
- b. El agrietamiento de la pared (por el peso del extintor)  
 the cracking of the wall from the weight of.the fire.extinguisher
- c. La inundación de la aldea (por el desbordamiento del río)  
 the flooding of the village from the overflowing of.the river

To this point, it is revealing that in unaccusative and anticausative contexts (i.e. without external arguments), it is precisely these *por*-phrases denoting a causing event that are grammatical, as the examples in (32) show. The bare inanimate entities sound odd, because it is hard to construe them as causing events, and they cannot be external arguments in the environments in (32). *Por*-phrases introducing agent external arguments are equally disallowed in unaccusative and anticausative contexts, as expected. Such is the case in (31-a), in a context in which the police murdered the bystanders. The same happens with (31-b), in a scenario where Pedro starts hitting the wall with

a pick and ends up cracking it. Similarly, the example (31-c) is out in a context where the children flooded the basement on purpose (e.g. with a hose).<sup>8</sup>

- (31) a. \*Los transeúntes fallecieron por la policía.  
           the bystanders died           by the police  
 b. \*La pared se agrietó por Pedro.  
           the wall REFL cracked by Pedro.’  
 c. \*El sótano se inundó por los niños.  
           the basement REFL flooded by the kids
- (32) a. Los transeúntes fallecieron (#por la fachada/ por el derrumbamiento de  
           the bystanders died           from the facade   from the collapse           of  
           la fachada).  
           the facade  
 b. La pared se agrietó (#por el extintor/           por el peso del  
           the wall REFL cracked   from the fire.extinguisher from the weight of.the  
           extintor).  
           fire.extinguisher).’  
 c. La aldea se inundó (#por el río/ por el desbordamiento del río).  
           the village REFL flooded   from the river from the overflowing   of.the river

Similarly, with impersonal verbs that have no argument structure whatsoever, it is only the *por*-phrase introducing a causal event. An example is given in (33), where a human (in this case, divine) entity is disallowed, but a causing event (the Earth’s rotation) is perfectly acceptable.

- (33) Amanece (#por Dios/ por la rotación de la Tierra).  
           the-sun-rises by God due.to the rotation of the Earth

We are now in a position to address the example (14-d) from Alexiadou et al. (2013a;b; 2014), repeated below. A hurricane is in fact a causing event, which is why the *por*-phrase is licit here as a causal adjunct.<sup>9</sup> Note that it is not licit to introduce a (second) causal adjunct (e.g. (34)). This would be unexpected if *por el huracán* was an external argument, as both types of *por*-phrases are compatible within the same predicate, as we saw in examples (27) and (28).

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<sup>8</sup> Note that, if we were to interpret these animates as causal adjuncts, we would not have a source reading (as with causing events), but rather a motivation reading, i.e. the bystanders would have died on account of the police, the wall would have cracked itself on account of Pedro, and the basement would have flooded on account of the children: all these readings, of course, run counter to our world knowledge. If we wanted to have a source reading for these human entities as causal adjuncts, we should use the prepositional complex *por culpa de* ‘because of/ due to’, lit. ‘by blame of’ (or *gracias a* ‘thanks to’, if the eventuality had a positive outcome).

<sup>9</sup> There are several tests that we can apply to show that *huracán* ‘hurricane’ denotes an event. For instance, it can be a complement of *durante* ‘during’ (e.g. (i-a)) and it can be the subject of the verb *parar* ‘stop’ (e.g. (i-b)). See Fábregas et al. (2012) for an overview of eventivity tests in the nominal domain.

(14-d) La destrucción de nuestros cultivos por el huracán.  
 the destruction of our crops by the hurricane

(34) ??La destrucción de nuestros cultivos por el huracán por el cambio climático.  
 the destruction of our crops by the hurricane from the change climatic  
 ‘The destruction of our crops by the hurricane due to climate change.’

To summarize, I have argued that only external arguments that denote a human entity can be expressed in Spanish nominal passives (what I label the HEE). Instances of *por*-phrases that do not introduce human entities, but rather, causing events, are actually instances of causal adjuncts, which are not dependent on the transitivity of the base verb and as such can appear in unaccusative and impersonal constructions. In the following section, I provide further evidence for this division of *por*-phrases in passive nominals into arguments and adjuncts.<sup>10</sup>

### 2.2.1 More on the argument vs. adjunct distinction

Since a core part of my analysis consists in distinguishing argumental *por*-phrases from adjunct *por*-phrases, I will provide more justification for the divide I propose. I will be drawing mostly from the battery of argumenthood tests presented in Schütze (1995) for English (see also Marantz 1984; Grimshaw 1990; Williams 2015, a.o., for further discussion).

#### Head dependence

Arguments are more restricted than adjuncts with respect to the heads with which they can appear. The examples in (35) and (36), from (Schütze 1995: 102) exemplify this for nouns. While the adjuncts *with gray hair* in (35-a) and *from Rosie’s* in (35-b) can appear with a wide variety of nouns, this is not so for the arguments *of Parliament* in (36-a) and *of physics* in (36-b).

The same situation holds with our *por*-phrases. While the adjunct *por la caída de la bolsa* in (37-a) does not appear to be restricted by the choice of nominal, the argument *por sus enemigos* ‘by his enemies’ in (37-b) is indeed restricted by the choice of nominal in question. See also our discussion in the preceding section, where it is shown that only nouns derived from verbs with external arguments can have argumental *por*-phrases, whereas causal adjuncts can also appear with nominals derived from unaccusative and impersonal verbs.

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- (i) a. Durante {el huracán/ \*la fachada/ \*el extintor/ \*el río}...  
 ‘During {the hurricane/ the facade/ the fire extinguisher/ the river}...  
 b. {El huracán/ \*la fachada/ \*el extintor/ \*el río} ya ha parado.  
 ‘{The hurricane/ \*the facade/ \*the fire extinguisher/ \*the river} has already stopped.’

<sup>10</sup> My thanks to an anonymous reviewer for encouraging me to further elaborate on the argument vs. adjunct distinction in *por*-phrases.

- (35) a. a man/woman/dog/muppet/scarecrow with gray hair  
 b. a menu/napkin/glass/waitress/matchbook from Rosie's
- (36) a. a member/\*dog/\*muppet/\*scarecrow of Parliament  
 b. a student/\*punk/\*watermelon/\*Martian/\*poodle/\*VCR of physics
- (37) a. {El empobrecimiento/ la desesperación/ la ruina/ la sorpresa} de Pedro  
 the impoverishment the desperation the ruin the surprise of Pedro  
 por la caída de la bolsa.  
 due.to the fall of the stock.market
- b. {El asesinato/ el aislamiento/ el linchamiento/ \*la salida/ \*la muerte} de  
 the killing the isolation the lynching the exit the death of  
 Pedro por sus enemigos.  
 Pedro by his enemies

### Iterativity

Another property that separates arguments and adjuncts is iterativity. While arguments cannot be iterated (e.g. (38-a)), adjuncts can (e.g. (38-b)).

- (38) a. \*Chris rented the gazebo to yuppies, to libertarians.  
 b. Kim met Sandy in Baltimore in the hotel lobby in a corner.

(From Schütze 1995: 102)

This asymmetry is observable in passive nominals too. While iterating argumental *por*-phrases leads to full ungrammaticality (e.g. (39-a)), iterating causal adjuncts does not ((39-b)). The iteration of causal adjuncts is not fully grammatical for semantic reasons, as it involves iterating causes of the eventuality and it is difficult to come up with examples that are not redundant, or worse, contradictory (see also (34)).

- (39) a. \*La destrucción de la ciudad por los enemigos por los rusos  
 the destruction of the city by the enemies by the Russians
- b.??El hundimiento de la isla por el cambio climático por la subida  
 the sinking of the island due.to the change climatic due.to the rise  
 del nivel del mar.  
 of.the level of.the sea

### Copular paraphrases

Schütze (1995) notes that adjuncts can be paraphrased with a relative clause (e.g. (40)), whereas arguments cannot (cf. (41)). For the author, this is due to adjuncts being semantically predicates (and hence easily paraphrasable with copular structures), unlike arguments.

- (40) a. a man (who was) from Paris  
 b. a man who had blue eyes (cf. a man with blue eyes)  
 c. the people (who were) on the payroll  
 d. the albums (that were) on the shelf
- (41) a. the destruction (\*that was) of the city  
 b. the weight (\*that was) of the cow  
 c. a student (\*who was) of physics  
 d. a member (\*who was) of Parliament  
 e. the problem (\*that was) with welfare (From Schütze 1995: 103)

We find the same pattern in Spanish passive nominals. While it is not possible to paraphrase an argumental *por*-phrase with a relative clause (e.g. (42-a)), causal adjuncts are perfectly paraphrasable with a relative clause, as (42-b) shows.

- (42) a. \*Un ocultamiento de pruebas que fue por la policía  
 a hiding of evidence that was by the police  
 b. Un ocultamiento de pruebas que fue por la presión del inspector  
 a hiding of evidence that was due.to the pressure of.the inspector  
 corrupt.  
 corrupt

### Pseudo-clefts

Schütze (1995) further points out that adjuncts can be clefted in a pseudo-cleft (e.g. (43-a)), whereas arguments cannot (e.g. (43-b)). The same situation holds with Spanish *por*-phrases in nominals: when argumental, they cannot be clefted (e.g. (44-a)), but when they function as causal adjuncts, clefting is possible (e.g. (44-b)).

- (43) a. What John did on Tuesday was meet Mary.  
 b. \*What John did on the shelf was put the book. (From Schütze 1995: 106)
- (44) a. \*Lo que fue por el ejército fue la invasión de la ciudad  
 what that was by the army was the invasion of the city  
 b. Lo que fue por órdenes del comandante fue la invasión de la ciudad.  
 what that was by orders of.the commander was the invasion of the city

### Ordering

Drawing from Jackendoff (1977), Schütze discusses that arguments generally must precede adjuncts, rather than the other way around (e.g. (45)). Once again, I observe this same effect in passive nominals: argumental *por*-phrases must precede causal adjuncts: the opposite ordering is ungrammatical (e.g. (46))



- (45) a. What John did on Tuesday was meet Mary.  
 b. \*What John did on the shelf was put the book. (From Schütze 1995: 106)
- (46) a. La invasión del país por los romanos por órdenes del capitán.  
 the invasion of.the country by the Romans by orders of.the captain  
 b. \*La invasión del país por órdenes del capitán por los romanos  
 the invasion of.the county by orders of.the captain by the Romans

### Optionality

All the standard argumenthood tests discussed in this section have supported my claim that there can be two distinct *por*-phrases in nominal passives: one that is argumental and another one that is an adjunct. One classic test for argumenthood involves optionality: arguments cannot be omitted from the sentence (e.g. (47)), whereas adjuncts can (e.g. (48)). Argumental *por*-phrases in Spanish, however, are optionally realized, both in nominal and verbal passives (e.g. (49)).

- (47) a. John put the book in the room.  
 b. \*John put the book.
- (48) a. John saw the book in the room.  
 b. John saw the book. (From Schütze 1995: 101)
- (49) a. La destrucción de la ciudad (por el enemigo)  
 the destruction of the city by the enemy  
 b. La ciudad fue destruida (por el enemigo)  
 the city was destroyed by the enemy
- (50) a. The chair was carried by Navin.  
 b. The chair was carried. (From Williams 2005: 281)
- (51) The city was destroyed (by the enemy). (From Grimshaw 1990: 109)

This optionality of *by*-phrases is a well-known trait of *by*-phrases crosslinguistically (e.g. (50) for verbal passives and (51) for nominal passives). While there have been many different proposals (mostly focused on English verbal passives) to account for this optionality, the majority of these proposals converge in defending that the *by*-phrase is thematically the external argument of the verbal predicate.<sup>11</sup> In Section 3.2, I will further defend that the argumental *por*-phrase

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<sup>11</sup> Some authors argue that the *by*-phrase is syntactically the external argument itself, i.e. that it base-generates in the same base position as external arguments in active sentences (e.g. Collins 2005). Others posit the external argument to be syntactically a pronominal element in the passive construction (e.g. the passive morpheme *-en* in Baker et al. 1989) or implicit (e.g. Bruening 2013), the *by*-phrase being an optional element that binds this pronoun or semantically saturates the external argument position (see Williams 2005 for an overview).

always has the thematic role of the external argument of the base verbal predicate in Spanish nominal passives.

### 2.2.2 A note on PP-causers

These causal adjuncts have been sometimes called PP-causers in the literature (Alexiadou et al. 2006; Schäfer 2008; 2012, a.o.). These authors argue that telic verbs are causative regardless of whether they project an external argument or not, in the sense that they denote a causative relation between events: a causing process event and a result state, mediated by a projection they label  $v_{\text{CAUS}}\text{P}$ . If VoiceP projects above  $v_{\text{CAUS}}\text{P}$  and introduces an external argument, then we have a transitive telic verbal predication; if VoiceP does not project, then we have an anticausative predicate (see (52), from Schäfer 2012: 160).

- (52) a. inchoatives/anticausatives: [ $v_{\text{CAUS}} <e>$  [Root + Theme  $<s>$ ]]  
 b. causatives: [ex.arg.Voice [ $v_{\text{CAUS}} <e>$  [Root + Theme  $<s>$ ]]]

These authors further propose that PP-causers attach to  $v_{\text{CAUS}}\text{P}$ , which licenses this event modifier thanks to its causative meaning. Thus, in an anticausative or unaccusative predicate you can have a causer, but not an agent, which is introduced by VoiceP. This is illustrated in (53) for English, (54) for German and (55) from Greek, from (Schäfer 2012: 161).

- (53) a. The vase broke from the earthquake/ \*from Peter/ \*by Peter  
 b. The flowers wilted from the heat/ \*from Peter/ \*by Peter
- (54) a. Die Vase zerbrach durch den Erdstoss/ \*durch Peter  
 The vase broke through the earthquake/ through Peter  
 b. Die Blumen verblühten durch die Hitze/ \*durch Peter  
 The flowers wilted through the heat/ through Peter
- (55) a. Ta ruxa stegnosan me/apo ton ilio/ apo ton Petro  
 The clothes dried-Act with/by the sun/ \*by the Peter  
 b. To fito anthise me/apo tin zesti/ \*apo ton Petro  
 The plant blossomed with/by the heat/ \*by the Peter

This proposal is at odds with the Spanish data. While we can indeed have the counterpart of PP-causers (what I label causal adjuncts) in anticausative/ unaccusative contexts, as well as in their corresponding nominalizations (e.g. (56), remember also (32)), we can also find PP-causers in atelic contexts. This is the case with unergative verbs like *vibrar* ‘vibrate’, which are aspectually activities (Borer 2005), and their corresponding nominalizations (e.g. (57)). The same situation is found with stative verbs like *costar* ‘cost’: PP-causers are acceptable with them, as well as with their nominalizations (e.g. (58)). Thus, to avoid confusion with previous theoretical proposals about PP-causers, I choose the label *causal adjuncts*.

- (56) a. El cuadro se cayó por el terremoto.  
The portrait REFL fell due.to the earthquake  
'The portrait fell due to the earthquake.'
- b. La caída del cuadro por el terremoto.  
the fall of.the portrait due.to the earthquake  
'The fall of the portrait due to the earthquake.'
- (57) a. La casa vibró por el terremoto.  
The house vibrated due.to the earthquake  
'The house vibrated due to the earthquake.'
- b. La vibración de la casa por el terremoto.  
the vibration of the house due.to the earthquake  
'The vibration of the house due.to the earthquake.'
- (58) a. La comida cuesta una fortuna por la inflación.  
the food costs a fortune due.to the inflation  
'Food costs a fortune due to inflation.'
- b. El elevado coste de la comida por la inflación.  
the high cost of the food due.to the inflation  
'The elevated cost of food due to inflation.'

The same situation is found in English, as Alexiadou et al. (2015) acknowledge. They point out that, as first noted by Levin (2009), unergative predicates accept PP-causers (e.g. (59) and (59), from Levin 2009). Alexiadou et al. (2015) further observe that stative verbs in English accept PP-causers too (e.g. (61), and see also (26-b), repeated below).<sup>12</sup>

- (59) a. She giggled from embarrassment/nervousness.  
b. She jumped from happiness.
- (60) a. He limped from pain.  
b. The dog yelped from the blow.
- (61) The skin is cold from the wind.

(26-b) The sidewalk was warm from the sun.

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<sup>12</sup> The PP-causer test to diagnose causative semantics in telic predicates appears to be reliable in Greek and German. These languages, Alexiadou et al. (2015) discuss, have specialized prepositions that can only appear with telic verbal predicates and not unergatives (*me* for Greek and *durch* for German). The reader is directed to the aforementioned work for further discussion.

### 2.2.3 Conservación-nominals

Crucial evidence that the DPE is not operative in Spanish passive nominals comes from what I label *conservación* ‘preservation’-nominals, derived from the corresponding *conservar* ‘to preserve’-verbs. I present non-exhaustive lists in (62) and (63), as well as an example in (64).

(62) *Conservación*-nominals

*Conservación* ‘preservation’, *control* ‘control’, *coordinación* ‘coordination’, *dirección* ‘direction/administration’, *gestión* ‘management’, *gobierno* ‘government’, *mantenimiento* ‘maintainance’, *presidencia* ‘presidency’, *protección* ‘protection’, *vigilancia* ‘surveillance’...

(63) *Conservar*-verbs

*Conservar* ‘preserve’, *controlar* ‘control’, *coordinar* ‘coordinate’, *dirigir* ‘direct’, *gestionar* ‘manage’, *gobernar* ‘govern’, *mantener* ‘keep’, *presidir* ‘presidir’, *proteger* ‘protect’, *vigilar* ‘surveil’...

(64) a. Los ciudadanos conservan el medioambiente.

the citizens preserve the environment  
‘The citizens preserve the environment.’

b. La conservación del medioambiente por (parte de) los ciudadanos.

The preservation of.the environment by part of the citizens  
‘The preservation of the environment by the citizens.’

*Conservar*-verbs have been recently analyzed by Fábregas & Marín (2017), García-Pardo (2020) and Wilson (2020).<sup>13</sup> These verbs belong to a type of *Aktionsart* that resist classification in the received typology from Vendler (1957), as they show mixed traits of states and events. For instance, their subjects can be agentive (in the classic sense of a human, sentient and volitional initiator of an eventuality), as shown by their ability to appear with agent-oriented adverbs (e.g. (65-a)). This is a trait they share with events (e.g. (65-c)), but not with states (e.g. (65-b)). On the other hand, these verbs do not have a habitual reading in the present tense (e.g. (66-a)), patterning in this sense with states (e.g. (66-b)), but not with activities: (66-c) means that Esther currently has the habit of running, not that she is necessarily running in the present. See Fábregas & Marín (2017) and García-Pardo (2020) for further data that shows this divide. Fábregas & Marín (2017) analyze these verbs as non-dynamic events, while García-Pardo (2020) argues that they are stative causatives.

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<sup>13</sup> In the aforementioned works, *conservar*-verbs are referred to as *gobernar* ‘govern’-verbs. I decide to refer to them as *conservar*-verbs in this paper for expository purposes: *gobernar* does not derive an eventive nominal (*gobierno* ‘govern’ denotes an entity, not an event), but *conservar* does (*conservación*).

- (65) a. La policía vigila la casa del sospechoso inteligentemente.  
the police surveils the house of.the suspect intelligently  
'The police surveils the suspect's house intelligently.'
- b. A Pedro le da miedo la recesión económica (\*inteligentemente).  
to Pedro him gives fear the recession economic intelligently  
'Pedro is afraid of the economic recession (intelligently).'
- c. María resolvió el problema inteligentemente.  
María solved the problem intelligently  
'María solved the problem intelligently.'
- (66) a. Paula gobierna el país actualmente.  
Paula governs the country currently  
'Paula governs the country currently.'
- b. Las entradas de cine cuestan 10 euros actualmente.  
the tickets of cinema cost 10 euros currently  
'Theater tickets currently cost 10 euros.'
- c. Esther corre actualmente.  
Esther runs currently  
'Esther runs currently.'

What is crucial about these verbs for the purposes of this section is that their external arguments qualify as direct participants. Remember the definition of the DPE, repeated in (8).

- (8) The Direct Participation Effect (DPE)  
Only external arguments that directly bring about the event and are co-temporal with its unfolding (i.e. direct participants) can be expressed in nominal passives.

In *conservar*-verbs, the eventuality must be co-temporal with the participation of the external argument: in fact, the eventuality begins and ends with the intervention of the external argument. For instance, in (65-a), there is only an eventuality of the house being surveilled for as long as the police actively surveils it, and will end the moment that the police stop doing it. The same holds for (66-a): the country will be governed for as long as Berta participates.<sup>14</sup> Note that these verbs can have inanimate subjects too, which are equally direct participants, as they can directly bring about the eventuality without the intervention of an agent and their participation is equally co-extensive with the eventuality in question (e.g. (67)).

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<sup>14</sup> This is similar to the observation in Pylkkänen (1997) and Arad (1998) about the stative reading of object-experiencer verbs *concern*, *disgust*. . ., where the mental state of the experiencer holds for as long as they perceive the stimulus and, as such, the perception of the stimulus is co-temporal with the mental state of the experiencer.

- (67) a. Esta máquina controla la calidad del aire.  
This machine controls the quality of the air  
'This machine controls the air quality.'
- b. La muralla protege la ciudad.  
the wall protects the city  
'The wall protects the city.'

Also, while telic verbs can have indirect causers as their subjects, as noted by Neeleman & van de Koot (2012) (e.g. (68), in contexts with intermediary causers), *conservar*-verbs do not appear to allow indirect causers at all, as (69) shows (the examples are for English, but they can be replicated for Spanish). The external arguments of *conservar*-verbs must thus be direct causers and, more specifically, direct participants.

- (68) a. A kind word with the manager will no doubt open the door.  
you speak to manager → manager speaks to doorman → doorman opens door
- b. Opening bus lanes to motorcycles will redden the streets of London with cyclists' blood.  
opening of bus lanes → increase of accidents → cyclists' blood on London streets
- c. Launch of new iPhone contracts is expected to enlarge T-Mobile's UK market availability of contract → people enter contract → improved market share
- d. A slip of the lip can sink a ship.  
loose talk → information obtained by spy → spy informs foreign navy → submarine torpedoes
- (69) a. #An election defeat of the X party will surveil private citizens.  
Party X loses → Party Y comes to power → Party Y implements surveillance laws
- b. #The death of the King will govern the country sensibly.  
The King dies → His heir inherits the throne → The new Monarch governs sensibly
- c. #These new medical findings can control opioid prescriptions.  
New medical research shows that opioids are highly addictive → Politicians set strict limits to the prescription of opioids

Now, if the DPE operated in Spanish nominals without any other provisos, we would expect that any nominalization derived from a *conservar*-verb could express its external argument via a *por*-phrase. However, just as we observed for telic verbs, argumental *por*-phrases are only licit when the external argument is human (e.g. (71)), but not when it is inanimate (e.g. (70)).

- (70) a. El control de la calidad del aire (#por esta máquina).  
 the control of the quality of.the air by this machine  
 b. La protección de la ciudad (#por la muralla).  
 the protection of the city by the wall
- (71) a. El control de la calidad del aire (por (parte de) los trabajadores).  
 the control of the quality of.the air by part of the workers  
 b. La protección de la ciudad (por (parte de) los milicianos).  
 the protection of the city by part of the militiamen

To summarize, the DPE, in and of itself, cannot explain the restrictions regarding argumental *por*-phrases. Predicates that clearly require a direct participant as an external argument, such as *conservar*-verbs, reject the expression of inanimate *por*-phrases in their nominalizations. Apparent cases of inanimate direct participants have been argued to be in fact instances of causal adjuncts, and not argumental *por*-phrases.

Our results so far could indicate that Spanish is in fact subject to the agent exclusivity condition in passive nominals. The next section scrutinizes such view, in particular the claim that it is the preposition *por (parte de)*, and not the base verb, that assigns the thematic role of Agent to its complement. It will be shown that the external argument can bear a variety of roles aside from Agent, which are in turn inherited from the base verb. On the basis of these facts, I argue that the relevant requirement at play in nominal passives is that the external argument be a human entity, rather than an agent.

### 3 On agentivity

#### 3.1 Previous accounts

Varela (2012), within a broader piece of work studying voice, aspect and tense in Spanish nominals, argues that there is no thematic transmission from the verb to the external argument of the nominal: it is the preposition *por (parte de)* which assigns the thematic role of Agent to its complement. In fact, building on Alexiadou (2001), this author proposes that nominal passives are unaccusative structures, which may be made causative through syntactic means independently of the verb. In other words, there is no argument structure systematicity between the base verb and the derived nominal.

To illustrate the point that the *por (parte de)*-phrase always assigns the theta role of Agent, Varela presents the example in (72), where *por parte de* appears in an underived nominal, i.e. with no argument structure:

- (72) campaña de publicidad por parte de los almacenes  
 campaign of publicity by part of the department.store  
 ‘A publicity campaign by the department store.’

The author also notes that with subject-experiencer psychological verbs we may have verbal passives, but not nominal passives (e.g. (73)). She further notes that some passive nominals do not have a corresponding verbal passive (74-a). I provide the ungrammatical verbal passive example in (74-b), for expository purposes.

- (73) Los juegos sucios en la política eran admirados por muchos ciudadanos. > \*la  
 the games dirty in the politics were admired by many citizens > the  
 admiración de los juegos sucios en la política por muchos ciudadanos.  
 admiration of the games dirty in the politics by many citizens  
 ‘Foul play in politics was admired by many citizens > the admiration of foul play in politics  
 by many citizens.’

- (74) a. La tenencia indiscriminada de armas por parte de la población  
 ‘The indiscriminate owning of weapons by the population.’  
 b. \*Las armas son indiscriminadamente tenidas por la población.  
 \*‘Weapons are indiscriminately owned by the population.’

Further advancing her point regarding the lack of systematicity in terms of argument structure between the base verb and the derived nominal, Varela notes that certain nominalizations from verbs that participate in the (anti-)causative alternation only have the intransitive interpretation (e.g. (75-a)). The opposite situation, the author claims, also holds: certain purely unaccusative verbs can give rise to a causative interpretation (e.g. (76)).

- (75) a. El presidente empeoró la crisis./ La crisis empeoró.  
 the president worsened the crisis the crisis worsened  
 b. El empeoramiento de la crisis (\*por el presidente).  
 the worsening of the crisis by the president

- (76) En el nacimiento de Juan intervinieron dos médicos.  
 in the birth of Juan intervened two doctors  
 ‘Two doctors intervened in Juan’s birth.’

Going to English, Fox & Grodzinsky (1998) review the data in (77)–(81) (from Jaeggli 1986: 606, cited from Jackendoff 1977) and reach a similar conclusion as Varela (2012): that verbal



and nominal passives differ in that there is no thematic transmission in the latter, and that the preposition *by* has the ability to assign an Affector thematic role to its complement (see also Rappaport 1983; Jaeggli 1986; and Grimshaw 1990). The role of Affector encompasses agents (e.g. (77)) and instruments (e.g. (78)).

- (77) a. The refugees were imprisoned by the government.  
 b. the imprisonment of refugees by the government.
- (78) a. The city was destroyed by lightning.  
 b. the destruction of the city by lightning.
- (79) a. The package was received by John.  
 b. the receipt of the package (\*by John).
- (80) a. Harry was feared by John.  
 b. the fear of Harry (\*by John)
- (81) a. Mary was respected by John.  
 b. the respect for Mary (\*by John).

These authors' take is that, when thematic transmission from the base verb is not possible, as is the case with nominals, the *by*-phrase can come to the rescue and assign an affector role to its complement provided such role is compatible with the semantics of the predicate, as is the case in (77) and (78). If the predicate is incompatible with an affector role, as is the case with (79)–(81), then a *by*-phrase will be ungrammatical. Alexiadou (2001) takes this data as evidence that nominalizations do not project an external argument and are syntactically unaccusative predicates.

### 3.2 Critical assessment of Varela (2012)

Contra Varela (2012), I argue that, in nominal passives, there is indeed thematic transmission from the base verb to the external argument. I further argue that the argument structure of the base verb determines the argument structure of the passive nominal (or whether you can have a passive nominal at all).

First, note that we can form nominal passives with stative verbs whose external argument is clearly not an Agent, and whose thematic role is inherited from the base verb. Such is the case of (82-a), where the external argument *los soldados* 'the soldiers' is clearly not an Agent, but an Experiencer. Similarly, *la población* 'the population' in (82-b) can hardly be considered an Agent: rather, it is a Possessor.

- (82) a. El buen conocimiento del terreno por (parte de) los soldados.  
 ‘The good knowledge of the terrain by the soldiers.’  
 (cf. Los soldados conocen bien el terreno ‘The soldiers know the terrain well.’)
- b. La tenencia indiscriminada de armas por parte de la población (from Varela 2012)  
 ‘The indiscriminate owning of weapons by the population.’  
 (cf. La población tiene armas indiscriminadamente ‘The population owns weapons indiscriminately.’)

Also, if the preposition *por* (*parte de*) assigned a thematic role by itself, as Varela (2012) claims, we would incorrectly predict examples like those in (83). In these examples, we have nominalizations from unaccusative verbs and, as we can see, adding an external argument (or an Agent participant) via a *por* (*parte de*)-phrase is impossible. Furthermore, if we accept that (76) (repeated below) is causative, we are also forced to accept that (84) is also causative, something problematic given that we are dealing with an unaccusative verb.

- (83) a. \*El nacimiento del niño por (parte de) los médicos.  
 \*‘The birth of the child by the doctors.’  
 (cf. \*Los médicos nacieron al niño \*‘The doctors birthed the child.’)
- b. \*La caída de Juan por (parte de) María.  
 \*‘The fall of Juan by María.’  
 (cf. \*María cayó a Juan \*‘María fell Juan.’)

(76) En el nacimiento de Juan intervinieron dos médicos.  
 ‘Two doctors intervened in Juan’s birth.’

(84) Juan nació {con la ayuda de/ gracias a...} dos médicos.  
 ‘John was born {with the help of/ thanks to...} two doctors.’

Furthermore, if deverbal transitive nominalizations did not project an external argument, we would not expect an agent to be semantically present in the absence of an overt *por* (*parte de*)-phrase. However, the examples in (85) show that these ‘short’ nominals accept agent-oriented adverbs such as *deliberado* ‘deliberately’ (e.g. (85-a)) and instrumental adverbials (e.g. (85-b)), which strongly points to the presence of an implicit external argument.

- (85) a. La destrucción deliberada de las pruebas  
 the destruction deliberate of the evidence
- b. La eliminación del malware con el nuevo antivirus  
 the elimination of.the malware with the new antivirus

About example (75-b), I note that *empeorar* ‘to worsen’ also borders on ungrammaticality in verbal passives (both with or without a *por*-phrase), as (86) shows. It seems, then, that resistance

to passivization is a property of the verb *empeorar* ‘to worsen’, not of nominalizations. Other verbs that participate in the (anti-)causative alternation, like *calcinar*, can indeed alternate in nominalizations (e.g. (87), from Fábregas 2016: 140).

(75-b) El empeoramiento de la crisis (\*por el presidente)  
 ‘The worsening of the crisis by the president.’

(86) ??La crisis fue empeorada (por el presidente).  
 the crisis was worsened by the president

(87) a. la calcinación del cadáver por (parte de) el mafioso  
 the calcination of.the corpse by part of the mobster  
 b. La calcinación del producto.  
 the calcination of.the product

With respect to her example (73), recent work by García-Pardo & Marín (2021) has shown that passives from participles derived from subject-experiencer psychological verbs are adjectival. Evidence for this is that participles accept degree modifiers (e.g. (88-a)) and can appear in the superlative form (e.g. (88-b)). The reason that they appear with the copula *ser* ‘to be’ (as verbal passives do) is that these participles denote Individual-level predicates. Thus, subject-experiencer psychological verbs can neither form nominal passives nor verbal ones.

(73) Los juegos sucios en la política eran admirados por muchos ciudadanos. > \*la  
 the games dirty in the politics were admired by many citizens > the  
 admiración de los juegos sucios en la política por muchos ciudadanos.  
 admiration of the games dirty in the politics by many citizens  
 ‘Foul play in politics was admired by many citizens > the admiration of foul play in politics  
 by many citizens.’

(88) a. Nuestro colega es muy/ bastante respetado.  
 ‘Our colleague is very/ quite respected.’  
 b. Nuestro colega es admiradísimo/ respetadísimo.  
 ‘Our colleague is very admired/ very respected.’

(From García-Pardo & Marín 2021: 5)

Finally, note that *por parte de*-phrases are not really productive with underived nouns. Nouns that intuitively have an agent that creates them or brings them about, like a novel in (89-a) or a piano sonata in (89-b), clearly reject *por (parte de)*-phrases that make such agent explicit (this is what is usually referred to as authorship *by* in the English literature). Similarly, eventive nouns that have an organizer (as is the case with (72)), do not generally accept a *por parte de*-phrase (e.g. (90)).

While I concede that examples like (72), repeated below, warrant further research, they seem to be the exception, rather than the rule.

- (89) a. \*Una novela por (parte de) Benito Pérez Galdós  
       ‘A novel by Benito Pérez Galdós.’  
       b. \*Una sonata para piano por (parte de) Beethoven  
       ‘A piano sonata by Beethoven.’
- (90) a. \*Una fiesta por (parte de) Isabel Preysler  
       a party by part of Isabel Preysler  
       b. \*Una partida de petanca por (parte de) mi abuelo  
       a game of petanque by part of my grandfather
- (72) campaña de publicidad por parte de los almacenes  
       ‘A publicity campaign by the department store.’

To sum up, *por (parte de)*-phrases in Spanish nominal passives do introduce the external argument of the base verb. As such, they are dependent on whether the base verb has an external argument, and whether such verb can passivize. The external argument introduced by the *por (parte de)*-phrase, in turn, inherits its theta role from the base verb, not from the preposition. The external argument, thus, may not necessarily be an Agent, but also a Possessor, Experiencer, etc.

The real restriction at play, then, appears to be that the external argument denote a human entity. We already saw in Section 2.2 that inanimate entities are disallowed as external arguments in nominal passives derived from eventive (i.e. dynamic) verbs. The stative nominals discussed in this section cannot be construed with inanimates, since inanimates cannot possess or feel. However, they accept non-human animates (i.e. animals) as subjects in their verbal active versions (e.g. (91)). These non-human animate external arguments do not survive the nominalization, as shown in (92).<sup>15</sup>

- (91) a. Los perros conocen bien el terreno.  
       the dogs know well the terrain  
       b. Mi perro tiene armas en su caseta.  
       my dog has weapons in his dog.house  
       (Context: my dog has found weapons lying around and has gathered them in his dog house)

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<sup>15</sup> An anonymous reviewer points out that there are also restrictions with the kind of human entities introduced by *por (parte de)*-phrases in nominal passives. The reviewer provides the examples in (i-a) and (i-b). For (i-a), they suggest that the reason is that the nominal, in combination with that internal argument, has more of a sense of military reconnaissance of the terrain. I agree with the reviewer, and I further note that, in (i-b), *tenencia* has a more restrictive sense of ownership rather than the general meaning of the verb *tener* ‘to have’, which is why it is odd to have a small child as a possessor.

- (92) a. #El conocimiento del terreno por (parte de) los perros  
 the knowledge of.the terrain by part of the dogs  
 b. #La tenencia de armas por (parte de) mi perro  
 the owning of weapons by part of my dog

### 3.3 Romanian

The same ‘human exclusivity’ effects discussed for Spanish in this paper are found in Romanian.<sup>16</sup> In nominals derived from telic predicates (e.g. (93)), we can only have human entities as external arguments introduced by *de către* ‘by’: non-human entities, even if direct participants, are not acceptable. The same effect is found with *conservar*-verbs (e.g. (94)), which, as we discussed, always have direct participants as their external arguments: once again, only human-denoting entities are licit in *de către*-phrases.<sup>17</sup>

- 
- (i) a. #El conocimiento del terreno por parte del bebé/ los niños pequeños/ los ancianos  
 the knowledge of.the terrain by part of.the baby the children small the elders  
 b. #La tenencia de armas por parte del niño pequeño  
 the owning of weapons by part of.the child small
- (ii) #El conocimiento de la artesanía tradicional por parte de los ancianos de la aldea  
 the knowledge of the traditional craftsmanship by part of the elders of the village

Harley & Noyer (2000) report similar data from English nominalizations, showing that the choice of internal argument affects the ability to express the external argument for pragmatic reasons. In (iii-a), for instance, it is expected that wealth is accumulated by a person (or group of people), so an agent can be easily expressed (*John*, in the example). On the other hand, in (iii-b), an agent cannot be easily expressed because of our world knowledge about dust gathering: dust gathers spontaneously, rather than by an external causer. Harley & Noyer (2000) conclude that the licensing of passive nominals (transitive nominalizations, in their terminology) depends on encyclopedic knowledge.

- (iii) a. John’s accumulation of wealth  
 b. #John’s accumulation of dust on the table (cf. Dust accumulated on the table)

While world knowledge undoubtedly plays a role in licensing external arguments in passive nominals (at least in Spanish and English), and a deverbal nominal may vary in meaning with respect to the base verb (e.g. (i-b)) note that non-human external arguments are not acceptable even if we have compatible scenarios, as shown in (iv), i.e. exactly as we would expect.

- (iv) a. #La grabación de la escena por la cámara  
 the recording of the scene by the camera  
 b. #La eliminación de la mancha por el jabón  
 the elimination of the stain by the soap

<sup>16</sup> Examples due to Monica Alexandrina Irimia (p.c.).

<sup>17</sup> Alexiadou et al. (2014), in a footnote, do note that there is inter-speaker variation with respect to the acceptability of direct causers in Romanian nominal passives, pointing out that some speakers only accept agents. For (15-b) and (15-d), my informant does not consider them fully ungrammatical, but she strongly prefers to substitute *de către* by *din cauza* ‘because, lit. from cause’.

- (93) a. stingerea focului de către pompieri/ \*de către râu.  
 extinction-definite.f.sg fire-m.sg-gen.m.sg by to fireworker.pl.m by to river  
 ‘The extinction of the fire (by the firefighters/ by the river).’
- b. scufundarea vasului de către pirăți/ ???de către val/ ?de către  
 sinking-f.sg ship-n.sg-gen.n.sg by to pirate.m.pl by to wave by to  
 balenă.  
 whale  
 ‘The sinking of the ship (by the pirates/ by the wave/ by the whale).’
- (94) a. controlul calității aerului de către muncitori/ \*de către  
 control-N.SG quality.GEN.F.SG air.GEN.M.SG by to worker.M.PL by to  
 mașină.  
 machine  
 ‘The control of the air quality (by the workers/ by this machine).’
- b. protejarea orașului de către miliții/ \*de către zid/ ?de  
 protect.INF-DEF.F.SG city-N.SG-GEN.N.SG by to militia.F.PL by to wall by  
 către câini.  
 to dog.M.PL  
 ‘The protection of the city (by the militiamen/ by the wall/ by the dogs).’

Interestingly, Romanian does accept non-agentive *de către*-phrases in the same stative contexts as Spanish. As shown in the examples in (95), Romanian can introduce both experiencers (e.g. (95-a)) and possessors (e.g. (95-b)). Romanian, then, also shows the human exclusivity effect.

- (95) a. cunoașterea terenului de către soldați  
 know-N.DEF.SG terrain-N.SG-GEN.N.SG by to soldier-M.PL  
 ‘The knowledge of the terrain by the soldiers.’
- b. posesia de armelor de către populație.  
 possession of weapons-PL.GEN by to population  
 ‘The possession of weapons by the population.’

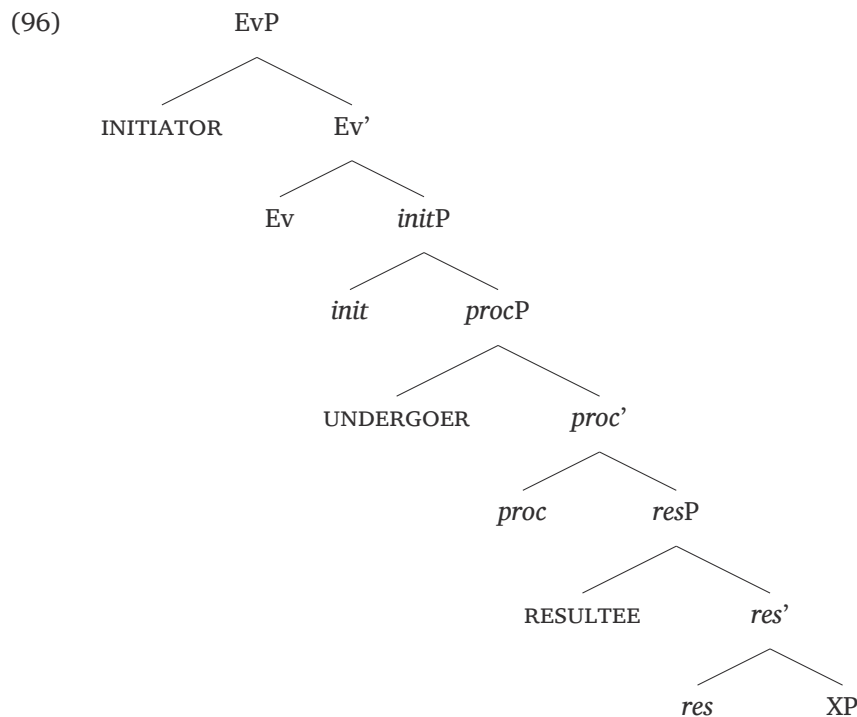
#### 4 The proposal

The empirical evidence that we have presented so far for nominal passives and needs to be captured by our analysis is the following (focusing on Spanish):

1. The base verb must be transitive
2. There is thematic transmission from the event structure of the verb to the external argument of the passive nominal
3. The external argument in Spanish nominal passives is restricted to human entities

I assume Ramchand's (2008) model of first-phase syntax, which proposes that event structure is built with a maximum of three verbal projections (*init*, *proc*, *res*), each associated with an event argument (a sub-eventuality) and with a subject in its specifier (an event participant). *Init* and *res* denote states, while *proc* denotes a dynamic event. In combination, these sub- eventualities are interpreted as forming a causal chain which ultimately derives the *Aktionsart* types observed crosslinguistically. In this model, there are no thematic roles, but rather, event roles interpreted as entailments from the aspectual structure of the predicate (see also Hale & Keyser 1993; Borer 2005).<sup>18</sup> The head introducing the external argument is *initP*.

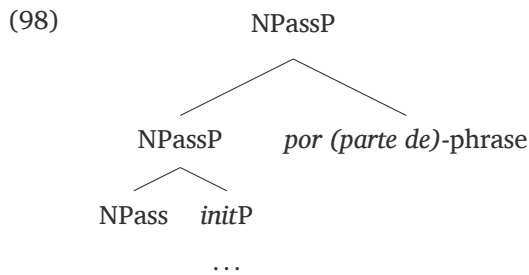
Following Ramchand (2018), I assume that *initP* projects an external argument semantically, while the syntactic introduction of the external argument in active sentences is mediated by a projection she calls Ev(ent)P, whose head also assigns accusative case to the internal argument. The maximal verbal projection in Ramchand's (2018) system is represented in (96).



<sup>18</sup> A proposal that made use of thematic roles as grammatical primitives could in principle also be accommodated. What is important, for the purposes of this work and for accounting for the data I have presented, is that thematic interpretation take place within the vP and it not be determined or manipulated by higher operators.

I propose that these constructions are built via a head I label Nominal Passive (NPass), which serves both as a passivizer and a nominalizer. This head selects a *initP* (i.e. a transitive extended verbal projection which has projected its external argument semantically, but not syntactically). The *por (parte de)*-phrase then adjoins to NPassP as an adjunct and saturates the external argument slot, as in (98). Note that this is a way of implementing the hypothesis in (97) which I have assumed for this work, adapted from Bruening (2013) for English.

(97) Hypothesis: *por (parte de)*-phrases in Spanish nominals require the (syntactic and/or semantic) presence of an external argument.



For the NPass head, I propose the lexical entry in (99), where  $\langle e \rangle$  is the type of individuals and  $\langle s \rangle$  the type of eventualities (which subsumes both events and states). In prose, NPass takes the predicate over individuals and eventualities denoted by the vP and returns the same predicate (i.e. essentially an identity function). However, NPass introduces the presupposition that the individual  $x$  (the external argument of the verbal predicate) be human. Thus, the *por (parte de)*-phrase that saturates this open position will have to adhere to this presupposition requirement.<sup>19</sup>

(99)  $[[\text{NPass}]] = \lambda P_{\langle e, st \rangle} [\lambda x, e P(e, x)]$   
*Presupposition:*  $\forall P_{\langle e, st \rangle} P(e, x) \rightarrow x$  is human

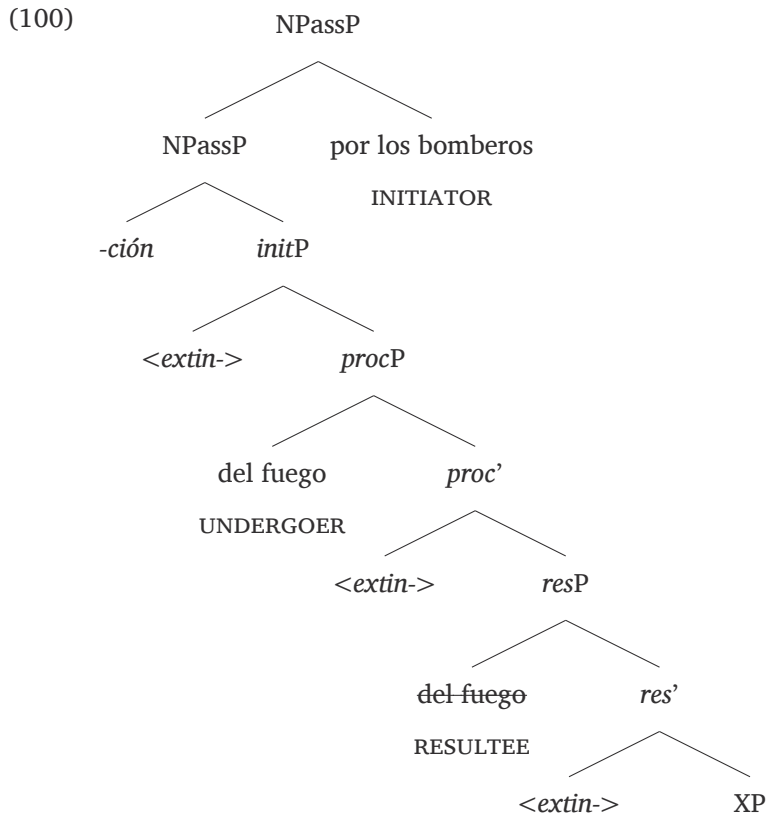
This framework provides us with several options with respect to nominal passives in terms of aspect and, by entailment, the thematic interpretation of the external argument. Let us focus on passive nominals derived from telic verbs, as in (6-a). I assume that the base verb structure lexicalizes *init*, *proc*, *res* (see Fábregas 2016) and that the derivational suffix lexicalizes NPass. The structure will be as in (100).

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<sup>19</sup> I acknowledge the influence of the work of Spathas et al. (2015) in this particular part of the analysis. Spathas et al. (2015), discussing the Disjoint Reference Effect in verbal passives (Baker et al. 1989), model such effect as a presupposition encoded in a passive head, as I do here for the human-entity restriction for external arguments in Spanish nominal passives.

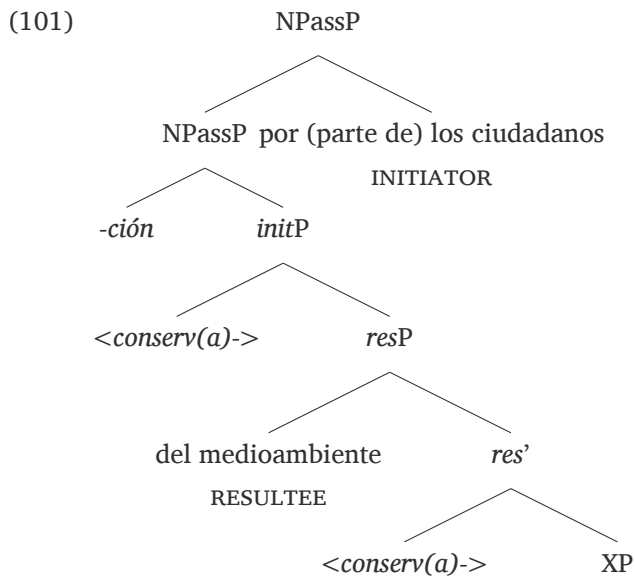


- (6-a) La extinción del fuego (por los bomberos).  
 ‘The extinction of the fire (by the firefighters).’



Moving on to *conservar*-verbs, which derive *conservación*-nominals as in (64-b), I follow García-Pardo (2020) in that these verbs are stative causatives, that is, predicates comprised of two causally related states. Translated to Ramchand’s (2008) system, this means that *conservar*-verbs have *init* and *res* projections, but no *proc*, as these predicates are not dynamic. However, as *init* is involved in a causative relation here, the external argument will also be interpreted as an INITIATOR, as in (100). Without *proc*, there is no temporal sequencing between the two states introduced by *init* and *res*, which effectively derives why the INITIATOR is temporally co-extensive with the eventuality denoted by the predicate. I provide the structure in (101).

- (64-b) La conservación del medioambiente por (parte de) los ciudadanos.  
 ‘The preservation of the environment by the citizens.’



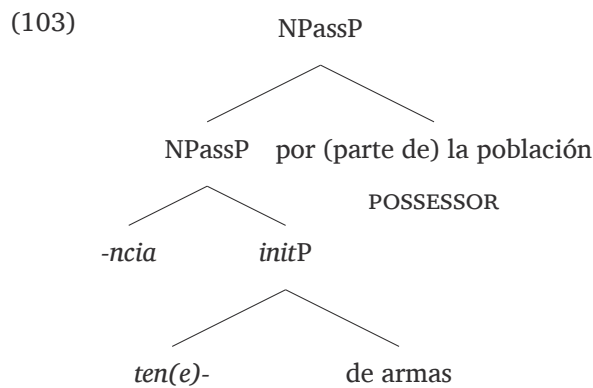
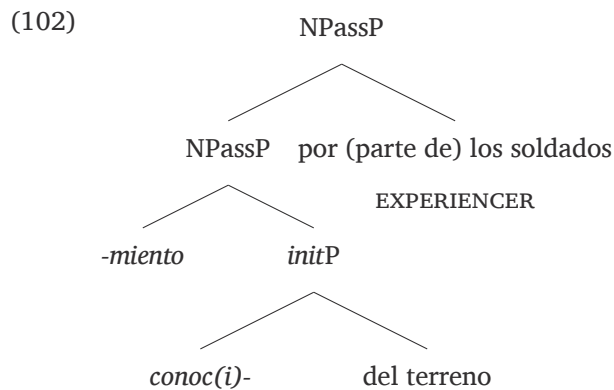
We now turn to the cases of non-causative stative predicates that we discussed in (82), i.e. states whose external argument is not an INITIATOR. For these, we follow the proposal in Jaque (2013) that they are comprised of a bare *initP* and, as such, are transitive and stative, but not causative. As transitive verbs, Jaque (2013) argues, they are good inputs for passive nominals.<sup>20</sup> The difference, I note, lies in the interpretation of the external argument: as *initP* is not in a causative relation with another subevent, its argument will not be an INITIATOR but rather, a POSSESSOR or an EXPERIENCER, depending on the lexical content of the verb.

- (82) a. El buen conocimiento del terreno por (parte de) los soldados  
'The good knowledge of the terrain by the soldiers.'
- b. La tenencia indiscriminada de armas por parte de la población  
'The indiscriminate owning of weapons by the population.'

<sup>20</sup> Jaque (2013) also discusses stative verbs that cannot form nominal passives and, in turn, do not have deverbal morphology in their nominal form (mostly subject-experiencer psychological verbs and measure verbs). An example is given (i), where the nominal *amor* 'love' in (i-b) shows no derivational relation to the verb *amar* 'to love' in (i-a). In addition, the Experiencer external argument is expressed via a genitive *de*-phrase in the nominal, whereas the Theme is introduced by a *por* 'for'-phrase ('for' and 'by' are homonyms in Spanish). Note that we cannot have a *por (parte de)*-phrase in this context.

- (i) a. Pedro ama a María  
Pedro loves DOM María  
'Pedro loves María.'
- b. El amor de Pedro {por/ \*por parte de} María  
the love of Pedro for by part of María  
'Pedro's love for María.'

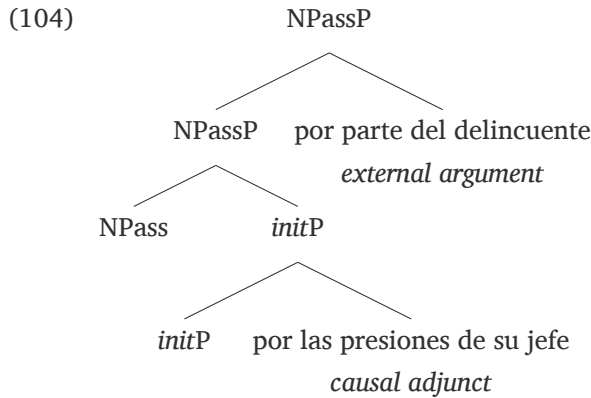
Jaque argues that these verbs cannot form nominal passives because they are structurally unaccusative and acategorical (i.e. they do not start off as either nouns or verbs in the derivation).



This proposal, then, derives the range of thematic interpretations that the external argument can receive in nominal passives strictly from the aspectual structure of the base verb. The preposition *por* (*parte de*) does not assign a thematic role nor does it contribute to argument interpretation in any shape or form.

A remaining question is how causal adjuncts fit in this model. While a thorough syntactic and semantic analysis of causal adjuncts goes beyond the scope of this paper, I will nonetheless outline a tentative proposal. Let us assume that causal adjuncts (and presumably other event-oriented adjuncts) merge in the highest projection of the extended verbal phrase (in the case of the transitive verbs discussed for passive nominals, *initP*). The preposition *por*, in this case, would be semantically contentful, introducing a causing eventuality that applies to the whole event, not just the initiational subevent (remember that causal adjuncts are possible with any verbal predicate regardless of adicity or *Aktionsart*). I further speculate that this preposition is also responsible for the semantic selection of events, rather than entities (remember that causal adjuncts are restricted to event-denoting nominals). Thus, the structure of a nominal like (28-b) would have the structure in (104).

- (28-b) El hundimiento del yate por parte del delinciente por las presiones de  
 the sinking of.the yacht by part of.the criminal due.to the pressure of  
 su jefe.  
 his boss  
 ‘The sinking of the yacht by the criminal due to his boss’ pressure.’



There are reasons to believe that causal adjuncts are lower than argumental *por (parte de)*-phrases.<sup>21</sup> For instance, if the argumental *por (parte de)*-phrase has a quantifier, it can take scope over a possessive in the causal adjunct, giving it a variable reading. Such is the case in (105-a), where the reading can be that for every kid, each of their mothers suggested that they memorize their homework. Such reading is not possible in (105-b): the only reading is that someone’s kid exists and all the mothers suggested that this kid memorized the homework, but not that all the mothers suggested that each of their kids did their homework. This is because the universal quantifier within the causal adjunct in (105-b) is lower than the external argument and it therefore cannot scope over it.

- (105) a. La memorización de la tarea por parte de todos los niños por sugerencia  
 the memorization of the homework by part of all the kids by suggestion  
 de su madre  
 of their mother
- b. La memorización de la tarea por parte de su niño por sugerencia de  
 the memorization of the homework by part of their kids by suggestion of  
 todas las madres  
 all the mothers

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<sup>21</sup> For my argumentation, I will follow the same set of arguments as Fábregas (2016) does to argue that the agent is higher than the theme in passive nominals.

There are more data regarding quantifier scope that backs our claim. In (106-a), for instance, the quantifier *tres* ‘three’ in (106-a) has scope over the causal adjunct, so that the nominal can mean that there are three parishioners such that each made one promise to Virgin Mary (so, three promises total). In (106-b), on the other hand, *tres* ‘three’ cannot have scope over the external argument (i.e. the nominal cannot mean that there is one parishioner for every promise made to Virgin Mary, adding up to three parishioners total). These facts are explained if the external argument c-commands the causal argument in the syntactic structure.

- (106) a. La donación de joyas por parte de tres feligreses por una promesa a  
 the donation of jewels by part of three parishioners due.to a promise to  
 la Virgen  
 the Virgin
- b. La donación de joyas por parte de un feligrés por tres promesas a  
 the donation of jewels by part of one parishioner due.to three promises to  
 la Virgen  
 the Virgin

## 5 Conclusions

This paper has argued that the ‘agent exclusivity’ effect in Spanish passive nominals ought to be recast as a ‘human exclusivity’ effect (HEE), which requires that the external argument be human. We have shown that *por* (*parte de*)-phrases can introduce participants bearing other thematic roles (e.g. Experiencer, Possessor...) so long as the participant is human. The thematic role, crucially, does not depend on the preposition, but rather on the thematic structure of the base verb. I have reported the same state of affairs for Romanian, a language in which the HEE also seems to hold. I have implemented the HEE theoretically in the form of a presupposition encoded in the head of the nominal passivizer.

I have also contended apparent counterexamples for the HEE (i.e. non-human entities introduced by a *por*-phrase) in passive nominals are in fact causal adjuncts, not external arguments. Semantically, these causal adjuncts denote a causing event and can modify any deverbal nominal irrespective of its argument structure. Syntactically, causal adjuncts are optional. Argumental *por* (*parte de*)-phrases, on the other hand, introduce human participants are restricted to nominals derived from transitive verbs and their thematic interpretation, as we mentioned, depends on whichever role the external argument of the verb has (i.e. it is not necessarily an agent). As expected, the participants introduced by argumental *por* (*parte de*)-phrases make good subjects in active sentences, but those introduced by adjunct *por*-phrases in the same scenario do not.

A broader question is how to derive crosslinguistic and intralinguistic variation in nominal passives and similar constructions (e.g. nominalized infinitives). An account such as the one put forth in Alexiadou et al. (2013a; 2014), positing flavors of *v* introducing a variety of external arguments in terms of thematic roles (indirect or direct participant and agent), fails to capture the systematicities between the interpretation of the external argument and the aspectual meaning of the verbal predicate. Moreover, we would need more heads to accommodate the selectional possibilities of the nominalizer (stative *v* heads, stative causative *v* heads, and so on).

The alternative I suggest is that the only grammatical restriction with respect to the semantics of the external argument in passive nominals is the HEE, which I have encoded in the nominalizer. Passive nominals in Spanish and Romanian show the HEE, whereas languages like Greek, German and French (as reported by Alexiadou et al. 2013a) do not. The ‘agent exclusivity’ effect observed in other languages and constructions such as Hebrew (Ahdout 2020) or English *-ing* nominals (Borer 2013), I predict, is in fact a conspiracy effect of sorts, that arises from the co-occurrence of the HEE with an additional aspectual requirement of the construction. If a nominalization requires that its base verb be causative, telic, or any other aspectual environment where an external argument would be interpreted as an initiator of the eventuality, and such argument must denote a human entity, then we obtain agent exclusivity as a side effect.

To illustrate this point, let us take English *-ing*-nominals. As discussed by Borer (2005; 2013), these nominals are restricted to atelic verbal structures (see also Snyder 1998; Alexiadou 2001): they disallow achievements (e.g. (107)) and states (e.g. (108)), and do not pass telicity tests with base verbal predicates that could otherwise be construed as telic in other morphosyntactic contexts (e.g. (109)). As we can see, this restriction is blind to the external argument, as the prenominal genitives in (107) and (108) feature both human and inanimate entities and they are equally ungrammatical.

- (107) a. \*Kim’s reaching of the summit  
 b. \*Pat’s ending of the flood  
 c. \*Robin’s finding of (the) oil  
 d. \*The bulldozer’s hitting of (the) bedrock
- (108) a. \*the plant’s adhering to the fence  
 b. \*Guy’s knowing of all the answers  
 c. \*Ava’s enduring of the noise  
 d. \*the stain’s resisting to cleaning
- (109) a. Kim’s formulating of government policy {for several weeks/ \*in two weeks/ ??twice}  
 b. Pat’s forming of a complex event {for three minutes/ \*in two minutes/ ??twice}  
 c. Robin’s dissolving of several chemicals {for three hours/ \*in two hours/ ??twice}  
 d. Inny’s writing of the letter {for three hours / \*in two hours/ ??twice}

Borer argues that *-ing* nominals require the presence of an Originator (a role akin to Ramchand's Initiator). She discusses the data in (110), where the nominals are not possible if the external argument is not an Originator but an Involuntary Experiencer (such as Dennis feeling cold or the wall touching the fence). The author also discusses object-experiencer psychological verbs, noting that they can only form *-ing* nominals if they have an eventive reading and thus their external argument is an Originator (e.g. (111)). If they have a stative reading, as in (112), and thus the subject is not an Originator but a Stimulus of sorts, the nominal is ungrammatical. Borer contends that the contrasts in (110)–(112) cannot be explained from the aspectual restriction of *-ing* nominals against states, as *weather*-verbs, which are clearly not stative but do not have an Originator, are banned in these constructions (e.g. (113)).

- (110) a. Dennis' feeling of {\*the cold/the coat on his shoulders}  
 b. Jenny's smelling of the stew  
 c. Corrine's touching of Gil  
 d. \*the wall's touching of the fence
- (111) a. John's irritating of the cats  
 b. Mary's annoying of the children  
 c. the cats' pleasing of Alexis and Bettina
- (112) a. \*the clarinet's irritating of the cats  
 b. \*the noise's annoying of the children  
 c. \*the music's pleasing of Alexis and Bettina.
- (113) a. \*It's (constant) raining in Utrecht (for months)  
 b. \*It's (rare) snowing in Paris (for several hours)  
 c. \*the (constant) raining in Utrecht (for months)  
 d. \*the (rare) snowing in Paris (for several hours)

However, note that the grammatical examples in (109)<sup>22</sup> all feature a human-denoting external argument. The *-ing* nominals counterpart of the Spanish passive nominals discussed in (24), with inanimate external arguments, are hardly acceptable. This is independent of whether the external argument appears as a prenominal genitive (e.g. (114)) or is introduced via a *by*-phrase ((115)). Since all these direct participants fall under Borer's label of Originators as generalized causers of the event, the explanation that *-ing* nominals require the presence of an Originator cannot be the whole story.

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<sup>22</sup> Thank you to Jon MacDonald for his judgments.

- (114) a. ??/\*The facade's squashing of two bystanders  
 b. ??/\*The fire extinguisher's cracking of the wall  
 c. ?The river's flooding of the village
- (115) a. ??/\*The squashing of two bystanders by the facade  
 b. ??/\*The cracking of the wall by the fire extinguisher  
 c. ?The flooding of the village by the river

In my terms, the explanation would be that *-ing* nominals, in addition to their aspectual restriction, have a transitivity restriction (their nominalizer must select an *initP*) and a 'human exclusivity' requirement for the external argument which operate together to produce an 'Agent exclusivity' effect.

The research conducted here predicts that transitive deverbal nominal constructions cross- and intralinguistically do not have an agentivity requirement, contra the received view, but rather, various grammatical requirements which create the illusion that there is such requirement. If correct, these findings are not only relevant insofar as they are more empirically adequate, as I have shown throughout the paper, but they are also significant for linguistic theory. In particular, since my aspect-based proposal allows to capture the phenomenon of 'agent exclusivity' without the need to resort to thematic roles, it can accommodate further research in this area within frameworks that reject the existence of thematic roles as grammatical primitives and consider them to be a by-effect of the event configuration, particularly in current neo-constructionist approaches (Hale & Keyser 1993; Mateu 2002; Borer 2005; Ramchand 2008; a.o.). Further research in passive nominals across different languages and constructions will ultimately determine whether the generalization put forth here is indeed universal.

As a final note, my proposal further opens a line of research regarding the connection between the human exclusivity restriction discussed here for external arguments in nominal passives and other crosslinguistic grammatical phenomena also sensitive to the 'humanness' of DPs. Such is the case of Direct Object Marking (DOM), as one reviewer rightly points out, which is found in Spanish and Romanian, as well as in many other languages. DOM is sensitive not just to humanness, but also to specificity and definiteness. Interestingly, it seems that the DPs introduced by *por (parte de)*-phrases in passive nominals are also sensitive to definiteness (e.g. (116-a)) as well as specificity, as the contrast between (116-b) and (116-c) shows. More research would be needed to further investigate the contrasts in (116) and what connection, if any, they bear to other phenomena such as DOM.

- (116) a. La destrucción de pruebas por parte de {el sospechoso/ ?sospechosos}  
 the destruction of evidence by part of the suspect suspects  
 'The destruction of evidence {by the suspect/ suspects}.'



- b. ¿La destrucción de pruebas por parte de un sospechoso sería terrible.  
the destruction of evidence by part of a suspect would.be terrible  
'The destruction of evidence by a suspect would be terrible.'
- c. La destrucción de pruebas por parte de un sospechoso al que vimos  
the destruction of evidence by part of a suspect whom that we.saw  
ayer.  
yesterday  
'The destruction of evidence by a suspect we saw yesterday.'
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## Competing interests

The author has no competing interests to declare.

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