

Towards a typology of *by*-phrases: Evidence from Spanish

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Goals: We argue for the need to distinguish two types of *por* ‘by’-phrases in Spanish nominal, verbal and adjectival passives: one is a causal adverbial and the other introduces the external argument, and is restricted to human agents. In addition, we outline a typology of languages with respect to the types of event participants that their *by*-phrases can introduce.

Setting the stage: Alexiadou et al. (2014) argue that Spanish *por*-phrases in nominals show the direct participation effect (DPE), meaning that they can only introduce initiators (human or not) that directly bring about the event denoted by the nominal (e.g. (26)), from op.cit). Alexiadou et al (2013) link the DPE to the thematic restrictions of *by*-phrases, noting that there are similar effects in Romanian, where the preposition *de cadre* introduces direct participants (human or not), as well as in German, where the preposition *durch* introduces human agents, both in verbal passives and nominalizations.

- (26) 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’

Problems with this view: It is not clear that *por* ‘by’-phrases in Spanish nominals introduce the external argument. The most salient reading in (26d) is one in which the hurricane was the cause of the destruction of the crops, but not a direct participant. It could be that the hurricane brought about a plague of some sort, which in turn destroyed the crops. More importantly, it could also be that farmers themselves decided to destroy the crops foreseeing dire consequences from an upcoming hurricane. Moreover, (26b) sounds perfectly fine under the causal reading of *el huracán*, i.e. where an implicit agent justified the evacuation on account of the hurricane. More problematically, (26d) can be paraphrased as the impersonal *se* passive in (1a), which does not accept agentive *por*-phrases (compare with (1b), ungrammatical under an agentive reading for “the enemy soldiers”). Spanish nominals can, however, introduce agents by means of a *por (parte de)*-phrase, which is restricted to human entities (e.g. (2)).

- (1) a. Se destruyeron los cultivos por el huracán.
Se destroyed the crops by the hurricane
b. *Se destruyeron los cultivos por los soldados enemigos.
Se destroyed the crops by the soldiers enemy.PL
(2) La destrucción de los cultivos por parte de {los soldados enemigos/ *del huracán}
the destruction of the crops by part of the soldiers enemy.PL of.the hurricane

The generalization: On the basis of these data, we argue that Spanish deverbal nominals can have one of two different *por*-phrases:

- *Por parte de*-phrases, restricted to human agents. These are argumental.
- *Por*-phrases, which introduce causal complements and are not true argumental agents.

Then, Spanish is more akin to German, in that *por parte de* introduces human agents, and not like Romanian, where *by*-phrases are sensitive to direct participation, and not humanhood.

Extension to verbal and adjectival passives: This situation is reminiscent of Jiménez & Marín's (2000) discussion of *por*-phrases in Spanish verbal passives, where they show that the agent restriction also holds (e.g. (3)).

- (3) a. La puerta ha sido abierta por el bedel/ *por el viento.
 the door has been opened by the janitor by the wind
 b. Los precios han sido aumentados por el gobierno/ *por la inflación.
 the prices have been raised by the government by the inflation

Interestingly, verbal passives provide a fertile testing ground to show that these two *por*-phrases are indeed distinct. While nominalizations do not generally allow for more than one event-related modifier, verbal passives are more permissive. Indeed, we can see in (4) that the two *por*-phrases can co-exist, one being argumental (with a human agent) and the other being a causal adverbial.

- (4) Los cultivos fueron destruidos por los granjeros por el huracán
 the crops were destroyed by the farmers by(=due to) the hurricane

Adjectival passives provide yet more evidence for the need to keep the two *por*-phrases distinct. As is known, *by*-phrases in adjectival passives tend to be restricted (see García-Pardo 2020 for a recent overview and proposal). As (5) shows, argumental *por*-phrases give rise to ungrammaticality, whereas a causal adverbial is licit.

- (5) Los ciudadanos están escondidos { *por el ejército/ por la decisión del gobierno }
 the citizens are hidden by the army by the decision of the government

Typology and analysis: Our findings, coupled with that of other authors, suggest the following typology of *by*-phrases cross-linguistically.

- *By*-phrases have no semantic restrictions: English (Bruening 2013)
- *By*-phrases restricted to direct participants: Romanian (Alexiadou et al. 2013)
- *By*-phrases restricted to human agents: German (Alexiadou et al. 2013) and Spanish

For the first type (unrestricted *by*-phrases), we assume Bruening's (2013) analysis in which the *by*-phrase attaches to Voice as an adjunct and saturates the external argument position, the preposition *by* being semantically empty (e.g. (6)). For the second type, we follow the spirit of Alexiadou et al. (2014) in that the *by*-phrase is associated to a *v* projection that denotes the process sub-event: this triggers an aspectual effect that bars indirect causers, as they are not directly related to the event (see also Alexiadou 2014 on this point) (e.g. (7)). For the latter type (the Spanish type), we propose that the *por*-phrase has a [+HUMAN] uninterpretable feature that imposes the restriction that the participant it introduces be human (e.g. (8)).

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| (6) [PassP/nP [VoiceP [<i>by</i> -phrase] [VP]]] | English-type languages |
| (7) [PassP/nP [VoiceP [VP [<i>by</i> -phrase]]]] | Rumanian-type languages |
| (8) [PassP/nP [VoiceP [<i>by</i> -phrase [+HUMAN]] [VP]]] | Spanish-type languages |

References: Alexiadou, A. 2014. The problem with internally-caused change-of-state verbs. *Linguistics* 52(4), 879-910 ■ Alexiadou, A. G. Iordachioaia, M. Cano, F. Martin & F. Schäfer. 2013. The realization of external arguments in nominalizations. *Journal of Comparative Germanic Linguistics* 16:73-95 ■ Alexiadou, A., M. Cano, G. Iordachioaia, F. Martin & F. Schäfer. 2014. Direct participation effects in derived nominals. *Proceedings of the 48th Annual Meeting of the Chicago Linguistic Society*, 17-32 ■ Bruening, B. 2013. *By*-phrases in passives and nominals. *Syntax* 16(1) ■ García-Pardo, A. 2020. *Stative Inquiries*. Amsterdam: John Benjamins ■ Jiménez, S. & R. Marín. 2000. Por activa y por pasiva. Paper presented at the IV Congreso de Lingüística General in Cádiz (April 3-6)