Possessives and spatial expressions in Spanish

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Received: 18-12-2023 Accepted: 11-04-2024 Published: 11-06-2024

How to cite: Fernández, Olga & Francisco Ordóñez. 2024. Possessives and spatial expressions in Spanish. In *Current issues in Spanish syntactic variation*, eds. Silvia Gumiel-Molina, Isabel Pérez-Jiménez & Pilar Pérez-Ocón. Special issue of *Isogloss*. *Open Journal of Romance Linguistics* 10(5)/6, 1-25.

DOI: https://doi.org/10.5565/rev/isogloss.383

Abstract

The aim of this paper is to analyze a type of Spanish (and Romance) complex locative non-directional prepositional expressions taking a genitive complement, like *encima/cerca de* ("on top/near of"). We will center our attention on an alternation that has gone unnoticed by most theoretical and descriptive grammars: this genitive complement may appear as an argument of the main predicate and show dative case (*se sentó encima de Juan*, "(S)he sat on top of Juan" > *se le sentó encima*, "Lit. (S)he DAT sat on top"). Most of these complex PPs may correspond to what has been called 'Axial Parts' (Svenonius 2006, 2008), but the paradigm extends to other cases. Based on work by Larson and Samiian (2021) on the typology of nominalization in prepositions in

Iranian Persian, we show that the common property of these prepositional expressions is that they contain a nominal element: a relational noun or a nominalized preposition. Apart from the dative alternation, one of the properties shown by complex locative prepositions in Spanish is that a stressed postnominal possessive is allowed, which can be masculine or feminine, giving rise to dialectal variation: *detrás mío/mía*, Lit. "behind mine", *cerca mío/mía*, Lit. "near mine". We will show that what determines the gender of the possessive is the nominalizer and the level of grammaticalization of the nominal head.

Keywords: complex prepositions, genitive/dative alternation, axial parts, nominalization, possessives, inalienable possession, datives.

1. Introduction. The genitive/dative alternation with spatial expressions

In Spanish (and other Romance languages) some spatial expressions have the form of a complex prepositional phrase, whose head is a preposition and whose complement is always a de "of" (genitive) phrase. The heading preposition can be followed by a bare N as in en-frente/en-cima de ("in front/on top of"), a DP as in a-l lado/a-lrededor de, or another P as in de-bajo/de-trás de ("under/behind of"). The peculiarity of these expressions is that the phrase in the genitive case complement can appear as a dative complement of the main predicate. Other spatial expressions like cerca, lejos, dentro, fuera ("near, "far", "inside", "outside"), also show the same alternation. We provide some examples in (1)

(1)	a. Se sentó encima/enfrente	de X	>	Se le sentó encima/enfrente (a X)			
	SE sat on top/in front	of X		SE DAT sat on top/in front to X			
	'(S)he sat on top/in front	of X'					
	b. Cayó al lado	de X	>	Le cayó	al lado	(a X)	
	fell to.the side	of X		DAT fell	beside	to X	
	'It fell to the side	of X'					
	c. Lo puse debajo/detrás	de X	>	Se lo pu	so debajo/deta	rás (a X)	
	ACC I-put below/behind	of X		DAT ACC put.on below/behind to X			
	'I put it below X'						
	d. Puse el libro cerca	de X	>	Le puse el	libro cerca	(a X)	
	I-put the book near	of X		DAT I.put the	book near	to X	
	'I put the book near X'						

While many studies have focused on the genitive expression, very little attention has been paid to the alternation and how this might be analyzed. In this paper, we will center our attention on the nominal nature of the construction. We will draw a parallelism between the described alternation and the one found in so called *inalienable possession* constructions.

1.1.Properties of alternating complex PPs

Two important restrictions constrain these alternating complex spatial expressions: (i) their complement must be in the genitive case, marked with *de* (other prepositions are not

¹ In Fernández-Soriano (2023) the semantics and the special syntax behind the expression in the dative are examined.

allowed (see (2a)), and (ii) the construction must have a locative meaning, i.e., non-locative complex prepositions do not allow their genitive complement to appear as a complement of the verb (see 2b-c):

(2)	a. Lo puse	junto a ella	>	*Se	lo	puse	junto
	ACC put	next to her		DAT	ACC	put	next to
	'I put it next	to her'					
	b. Llegué antes/después de Juan I arrived before/after of Juan		>	*Le	llegue	ź	antes/después
				DAT	arrive	d	before/after
	'I arrived be	efore/after Juan'					
	c. Hablé	en vez de él	>	*Le	hablé	en vez	
	I spoke	instead of him		DAT	spoke	instead	1

It is also important to note that not all predicates accept this dative alternation. Thus, these forms are impossible with static localization predicates and with predicates that require a directional complement:²

(3)	a. Está (situado) en frente de mí is (located) in front of me 'It is located in front of me.'	>	* Me DAT	está (situado 1.1 is located I	enfrente in front	
	b. Se encuentra cerca de ella SE is-found near of her 'It is found near her'	is-found near of her SE DAT is-foun				
	c. Permanecí al lado de Juan I remained at Juan's side d. Me dirijo al lado de María I am heading to Mary's side 'I am going to Mary's side'	> >	*Le DAT *Me REFL	permanecí remained le dirijo DAT direct	al lado beside al lado to the side	
	e. Llegué al lado de mi hija I.arrived to.the side of my daugh '(S)he arrived at my daughter's sid		*Le DAT	llegué al I.arrived to t	lado he side	

It has been observed that, in general, animate/human grounds are more likely to give rise to the dative alternation, so contrasts as the one in (4) are obtained.³

(4) Puse el vaso cerca del televisor/de Juan > Le puse cerca el vaso *al televisor/a Juan I put the glass near of the TV/ John DAT put the glass near to the TV/ John

Spanish grammars call these complex prepositional forms (*nominal*) adverbs, since they can drop their complement (5), and describe two types: one purely locational, and one with directional meaning, usually preceded by the (directional) preposition a, "to":

Octavio de Toledo (2016: n.194) states that this construction with pronominal locative dative usually appears with predicates that denote change of position or displacement with a goal in the space occupied with the entity referred by the clitic.

As observed by an anonymous reviewer, this is not a strong restriction. We will not go further into details; we just want to point out that the same tendency has been observed for inalienable possession constructions that will be described below.

- (5) Lo puse al lado / cerca / encima /enfrente ACC I.put beside / close / on top / in front 'I put it beside/close /on top /in front'
- (6) **Locational:** *encima, enfrente, al lado, alrededor, debajo, delante, dentro, fuera,* on top, in front, besides, around, under, in front, inside, outside *lejos, cerca* far, close

Direccional: *arriba, abajo, a(de)lante, adentro, afuera* on top, below, in front, inside, outside

A first case of dialectal variation can be found with regard to these constructions, since in Peninsular Spanish only the first group gives rise to the described dative alternation. In fact, in this dialect directional complex prepositions do not take genitive complements at all, as seen in (7a), whereas in most American varieties both constructions in (7) are perfect (Eddington 2017 and references therein):

- (7) a. *Arriba abajo adentro afuera de X
 On top below inside outside of X
 - b. Peninsular Spanish
 - * Le puso algo afuera/ adentro/abajo DAT put something outside/ inside/ below '(S)he put something outside /inside/below'

Corresponding American constructions do not have a directional interpretation, so they behave just like locatives in Peninsular varieties.

As can be seen in the examples in (1) and the list in (6), complex locational prepositions have a monosyllabic initial preposition such as de, "of" or en, "in/on" (a "to" in American varieties) and take a genitive complement (preceded by de). Concerning their internal composition, we can find the following classification:

- a) P-(det)-N: encima ("on top"), enfrente ("in front"), al lado ("next to"), alrededor ("around")
- b) P-P:
 debajo ("under"), delante ("in front"), detrás ("behind")
 Some come from Latin prepositions/adverbs:
 dentro ("inside"), fuera ("outside") (from Lat. INTRO, FORA)
- c) Non (straightforwardly) decomposable cases: cerca ("near", "next to"), lejos ("far")
- d) The prepositional constructions *a favor/en contra de* ("in favor/against of") constitute a special case, since they behave like locative prepositions even if their meaning is not locative.

It has to be pointed out that relational nouns indicating spatial situations, preceded by prepositions (usually a, "to", en "in") such as a la derecha/izquierda, "to the right/left", a la zaga/vera, "to the back/side", en medio "in the middle", en el centro "in the center", also give rise to this dative alternation. This is also the case for adjectives with locative meaning with the neuter article, such as en lo alto, "on top" (Lit. "on the high"), a lo largo/ancho, "along" (Lit. "to the long/wide"):

(8) Se le sentó a la derecha a. Se sentó a la derecha de X > SE sat to the right of X SE DAT sat to the right '(S)he sat to the right of X' b. Va a la zaga de X a la zaga Le va Goes to the back to the back of X DAT goes '(s)he goes to the back of X' c. Coloca eso a lo largo de X Colócale eso a lo largo Place that to the long of X Place.DAT that to the long 'Place that along X'

In contrast, names of cardinal points, *norte/sur/este/oeste*, do not allow dative alternation:

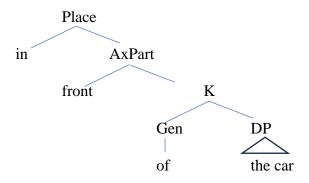
(9) Pon la frontera al norte/sur de X > ?*Ponle la frontera al norte/sur (a X)
Put the border to the North/South of X Put.DAT the border to the North/South to X

In sum, the possibility of taking a genitive complement, and of allowing the dative alternation, must be related to the (internal) nominal nature of the complex prepositional phrases. We will come back to the preceding contrasts.

1.2. The nominal nature complex locative prepositions. Axial parts

The genitive/dative alternation we are studying is characteristic of spatial expressions involving 'Axial Parts' in the sense of Jackendoff (1996) and Svenonius's (2006, 2008) terminology. Axial parts are a special kind of functional categories containing a relational noun (*front, back. side...*) which is "reanalyzed as a locative expression, referring not to a part of the object, but to a space defined with reference to that part" (Svenonius 2006: 49)⁴. The structure below represents a categorial hierarchy where DP is the Ground:

(10) from Svenonius (2006)



We can extend this analysis to our alternating expressions and contend that they are basically nominal. Some evidence for this claim is:

⁴ For an analysis of axial parts as weak definites see Matushansky &Zwarts, (2019).

- Many of them admit diminutives, irrespective of their internal structure: a)
- Cerqu-ita (near-Dim.), lejitos (far-Dim.), al ladito (to the side-Dim) (11)
- b) All of them can be complements of a (non-directional) preposition, thus behaving like full-fledged DPs (12). In fact, they can themselves be marked as genitive with the preposition de "of" as in (13):
- (12)a. Por encima, desde dentro... (non directional) by on top from inside b. *Hacia al lado/enfrente/debajo... (directional)

Towards to.the side/in front/below

- encima/debajo/detrás/al lado de la mesa (13)El libro de the book of on top/under/behind /beside of the table
- c) Crucially, as we will see in the last section of this paper, locative complex prepositions can take possessive postnominal adjectives mío/tuyo/suyo ("mine/yours/his-hers-theirs"), just like full nominals (as seen by Plann 1986, 1988) (14a). As for the dative alternation, this property is also restricted to *locative* complex prepositions (14b). Directional locative prepositions do not admit stressed possessives in Peninsular varieties (constructions in (14c) are fine in mentioned American dialects, Eddington 2017):
- a. Encima mío (14)delante tuyo cerca suyo on top mine in front yours near his/hers/theirs 'On top of me' 'in front of you' 'near him/her/them' b. *Le llegué antes/después suvo **DAT I.arrived** before/after his/hers/theirs c. Peninsular Spanish *Arriba/afuera/adentro/abajo mío

On top/outside/inside /below mine

In the next section we will analyze the alternation presented in (1) as an instance of the one obtained in possessive constructions headed by (relational) nouns. Our proposal is that complex locative prepositions give raise to constructions similar to so called "inalienable possession", usually involving body parts.

'Inalienable Possession' and 'Inalienable Location'

In this section we will show that the genitive-dative alternation displayed by complex locative prepositions can be analyzed as an instance of the one found in nominal possessive constructions (see Pavón 2001, Sánchez López 2007); in particular, we claim that our alternating locative complex constructions are parallel to possession structures involving body parts as the ones in (15)

(15)a. Tocaron la cabeza del caballo (genitive) of the horse they.touched the head

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'I put the book in Juan's hand.

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b. Le tocaron
                     la cabeza
                                   al caballo
                                                  (dative)
  DAT they.touched the head
                                   to the horse
'They touched the horse's head'
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We would like to argue that the alternation displayed by our constructions involving spatial expressions is parallel to so called *Inalienable Possession* constructions (Vergnaud & Zubizarreta 1992, Guéron 2006):

(16)a. Se sentó en el regazo de Juan > Se le sentó en el regazo on the lap of Juan on the lap SE sat SE DAT sat '(S)he sat on Juan's lap' b. Puse el libro en la mano de Juan Le el libro en la mano puse I.put the book on the hand of Juan DAT put the book on the hand

A first observation one can make is that, in the dative version of the structures under study, if the ground is animate (as is generally the case), the prepositional phrases can refer to an undetachable region of (often human) anatomy: the top/bottom/side part of the body. A fact that supports the preceding observation is that alternating locative complex prepositions can be complement of verbs like doler, "hurt", tocar "touch" or rascar, "scratch", whose arguments usually refer to parts of human anatomy (17):

duele/pica {arriba/abajo/detrás/delante/dentro} (17)a. Me hurts/itches on top/behind/in front/ inside DAT.1 'My top/back/front/inside is hurting/itching' b. Te delante tocas DAT.2 you-touch in front 'You are touching your front (part)' rasques detrás c. No le not DAT you-scratch behind 'Do not scratch his back'

Following that reasoning, we propose that locative complex prepositions give rise to what we will name *Inalienable Location*, where the expressed contact point may be understood (in the adequate context) as a body part (18). Note that, as expected, in these cases the corresponding genitive construction (with no dative) is impossible, as seen in the examples in (19), which are to be understood with the intended possessive interpretation with respect to the location.

a. Le escribieron detrás (en la espalda, en el trasero...) (18)algo something behind (on his back, on his behind...) DAT wrote 'They wrote something on his back' encima (en la cabeza, en la cara, en el pecho...) b. Le escupieron on top (on his/her head, on his face, on his chest...) DAT spat 'They spat on top of him/her' c. Se le subió encima (a los hombros, a la cabeza...) climbed on top (on his shoulders, on his head...) SE DAT '(S)he climbed on top of him/her'

- (19) a. *Tatué (algo) detrás de María (vs. Le tatué (algo) detrás)
 I tattooed something behind of Maria
 - b. *Manché detrás de Juan (vs. Le manché detrás)
 I.stained behind of Juan
 - c. *Corté/herí (por) debajo de Juan (vs. Le corté/herí (por) debajo) I cut/injured below Juan

One piece of evidence to sustain our claim is that, as noted by Vergnaud & Zubizarreta (1992), inalienable possession constructions involving body parts show a *Distributivity Effect* whereby singular inalienable (body-part) arguments, like *cabeza* "head" in (20a) may be interpreted as implying the existence of a plurality of heads (each receiving a different hat), by virtue of its association with the plural possessor argument *los niños*. This distributive interpretation is also obtained with our *Inalienable Locations* involving Axial Parts and other spatial expressions, as seen in (20c,d). Once again, in both cases distributive interpretation is impossible with the genitive complement construction (see (20b,d)):

- (20) a. Les colocaron un sombrero en la cabeza a los niños (a cada uno de ellos)

 DAT they.put a hat on each boy's head'

 a. Les colocaron un sombrero en la cabeza a los niños (a cada uno de ellos)

 on the head to the boys to each one of them
 - b. #Colocaron un sombrero en la cabeza de los niños they.put a hat on the head of the boys
 - c. Les puse algo al lado a los niños (a cada uno de ellos)

 DAT I.put something to the side to the boys to each one of them

 'I put something on each boy's side'
 - d. Puse algo al lado de los niños (de todos ellos)/(#de I.put something to.the side of the boys of all of them of cada uno de ellos each one of them

'I put something beside the boys'/#'I put something beside each of the boys'

Our conclusion is that the structure of locative complex prepositions is similar to a possessive DP. A process of 'Possessor Raising' applies (Deal 2017), having as a result an *Inalienable Location* construction where the location expressed by the complex preposition can determine a body part.

At this point, we would like to note that *a favor* and *en contra*, although they do not clearly indicate location, they display all the described properties. In particular, the animate/human preference on the ground (which is obligatory interpreted as affected) is very strong in both cases. The reason for this may be that the ground as a whole, and not a part of it, is interpreted here as a location:

(21) a. Se le puso/le votó en contra a Juan / *a la propuesta SE DAT (S)he-stood/voted against to Juan /to the proposal b. Tienes tres votos a favor/ en contra

you.have three votes in favor / against

c. Tienes el viento a favor/en contra you.have the wind in favor/against

^{&#}x27;The wind blows facing you /against you'

We will not go deep into this question here. We refer the reader to the last section. The fact that we will address next is that, as has been shown, in inalienable possession constructions involving body parts, the presence of the dative triggers the addition of an argument to the main predicate (Cuervo 2003). In Inalienable Location constructions, we will show, a new argument is also inserted, and an additional thematic relation with the verb is established.

3. The nature of the alternation. The possessive dative as an affected argument

It has been observed that inalienable possession constructions encode a whole/part relation between the figure and the ground (hence the "inalienable" meaning).⁵ The same meronymic relation obtains in the dative version of inalienable location constructions, which also associate a holistic interpretation, that is, as seen by the glosses in (22), in the dative versions the whole object (the sofa/the table) is *completely* covered by the blanket/cloth.

(22) a. Le pusieron una manta encima al sofá

DAT they-put a blanket on top to the sofa

'They covered the sofa with a blanket (completely)'

a'. Pusieron una manta encima del sofá
They-put a blanket on top of the sofa
'They put a blanket on (top of) the sofa.'

b. Le colocaron una tela encima a la mesa
DAT they-placed a cloth on top to the table

'They covered the table with a cloth (completely)'

b'. Colocaron una tela encima de la mesa They placed a cloth on (top of) the table

In the case of human grounds, this wholistic interpretation translates into an *affectedness* feature by means of which the participant in the dative is directly affected by the result of the denotated action:⁶

(23) a. A Juan le pusieron una piedra encima para que no pudiera moverse To Juan DAT put a stone on top so that he could not move 'They put a stone on Juan so that he could not move'

b. Me cae/queda cerca/enfrente DAT1p falls/stays close/in front

'It is close to/in front of me (of the place where I live/work...)'

See Romero (2008) and also Demonte (1994).

In fact, these locative constructions can be complements of the possession verb *tener* "to have" and act as secondary predicates inside a PP with a central coincidence preposition (See Pavón, 2001):

⁽i) a. Tengo algo al lado/encima/debajo/alrededor/cerca I have something besides/on top/around/near

b. No puedes trabajar con el niño encima/debajo/al lado You cannot work with the baby on top/below/beside

On the other hand, it is important to note that in inalienable possession constructions the dative establishes a possessive relation with a DP. This DP must not necessarily be an argument of the verb. In fact, the data show that the relevant property is the *affected* nature of the added dative, as seen in (24). This is also true for *Inalienable Location* constructions, as shown by the contrasts in (25)-(26), where the locative expression is an adjunct and dativization is only permitted if the dative can be interpreted as affected:

- (24) a. *Le dijo cosas raras en las rodillas

 DAT said strange things on the knees.

 '(S)he said strange thing on his/her/their knees.'
 - b. Le rompió algo en las rodillas
 DAT broke something in the knees

 '(S)he-broke something in his knees (against)'
- (25) a. *Le resbalé/tropecé encima
 DAT slipped/stumbled on top
 'I slipped/stumbled on top of her'
- (26) Le estornudó/tosió encima (y le contagió el coronavirus)

 DAT sneezed/coughed on top

 '(S)he-sneezed over her (and gave her coronavirus)'

This "added" affected dative ends up being an argument of the predicate and forming a constituent with the verb. An important piece of evidence for this claim comes from the possibility of having idiomatic expressions, which is always restricted to constituents that form the idiomatic chunk. Again, this is true for body parts in (27) and for our complex prepositional locatives in (28):⁷

(27) a. Le pusieron la miel en los labios
DAT they.put the honey in the lips
'They tempted him/her'

An anonymous reviewer suggests substitution by the pro form *lo hizo* ("(S)he did") in support of the argumental status of the dative argument and provides the following examples:

(i) a. María dijo palabrotas delante de los padres y Juan también lo hizo al lado de sus primos María said bad words in front of her parents and Juan also did it beside her cousins

b. *María le rompió una botella encima y Juan también lo hizo debajo María DAT broke a bottle on top and Juan also did it on the bottom

We thank this reviewer for the observation, which we take as an argument in favor of the incorporation of the preposition heading the locative PP into the verb, thus allowing dativization of its complement, as will become clear below. In fact, the mentioned contrast also obtains in argumental PPs:

(ii) a. Juan puso algo al lado de María y Pedro lo hizo encima de Juana. Juan put something next to of Maria and Pedro it did on top of Juana 'Juan put something next to Maria, and Pedro did on top of Juana.'

b. *Juan le puso algo al lado a María y Pedro (se) lo hizo debajo (a Juana) Juan DAT put somehting next to Maria and Pedro SE it did under (to Juana) b. Se les fue de las manos SE DAT it-went from the hands

'It escaped from them'

c. Se le metió en la cabeza/ entre ceja y ceja
SE DAT got into the head/ between eyebrow and eyebrow
'It became a fixed idea for him/her'

(28) a. Le pusieron la mano encima
DAT they-put the hand on top
'They beat him/her'

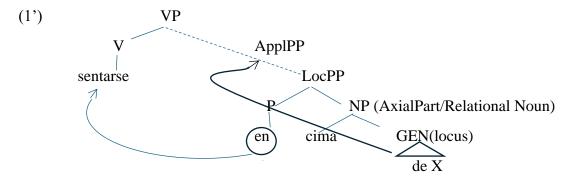
b. Le echaron tierra encima
DAT they-threw sand on top
'They hid it'

c. Le quitaron un peso de encima
DAT they-took a weigh from the top
'They relieved him/her'

d. Le echaron la vista encima
DAT they-threw the look on top
'They caught an eye on him/her'

As for the derivation of the dative structure, we will adopt the idea that licensing of datives depends on the presence of specialized argument-introducing heads: 'Applicatives' (Pylkkänen (2008)). Cuervo (2003) describes a type of applicatives, Affected Applicatives, which embed under a (dynamic) event introducer and take a projection denoting resulting states of (causative-inchoative) predicates. We would like to claim that this is the projection for Inalienable Location constructions with complex PPs. In Fernández-Soriano (2023) it is shown that the dative argument in the Specifier position of the Affected Applicative Phrase is the result of movement from the complement position of the Locative PP. Our claim is that this movement is parallel to the one proposed by Acedo-Matellán (2016, 2017) for classical Latin preverb constructions, where a similar alternation between a DP complement of a preposition and a dative argument of the main predicate obtains. What triggers this structural change is, according to the author, incorporation of that preposition into the verbal head. Based on this proposal, we claim that a (covert) preposition incorporation process onto the verb triggers further movement of the (genitive) ground complement of the nominal preposition to the projection equivalent to Affected ApplP, thus accounting for the dative alternate. We will not elaborate on the details here, 8 let us just note that locative constructions under study share the property of being introduced by a "weak" preposition (usually en "in", de "of/from", a "to"). Our proposal is that this preposition is (covertly) incorporated into the verb in the dative version. This incorporation triggers further movement of the (genitive) complement of the preposition to the Appl head thus becoming a dative complement of the predicate. For a sentence like (1a) the representation would be as in (1'):

⁸ See Fernández-Soriano (2023) for a first approximation.



We will be concerned in this work with the internal structure of the complex prepositional locatives and the nature of the genitive complement, which we will revisit in the following section. First, let us we will go back to the main nominal property shown by these constructions: the possibility of taking stressed (postnominal) possessives.

4. More on Possession. Stressed possessives and the internal structure of *Inalienable Location*

We mentioned in Section 1 that, due to their nominal nature, alternating complex prepositions admit postnominal possessive adjectives. It was also shown that the possibility of dativization and the possibility of strong possessive postnominal adjectives are linked,⁹ that is, locative phrases giving rise to dative alternation are the same that allow their genitive complement to appear in the form of a postnominal possessive adjective.¹⁰ So strong possessives are not possible in non-locative constructions (29) and are more common with animate/human grounds. This is why in (30) the postnominal possessive referring to a bridge or drawer is odd.

(29) *Antes /después/ en vez suyo Before /after/ instead his-hers

(30) a. Pasé por encima/ debajo suyo (#suyo=del puente)

I.went on top/ under (his-hers-them= of the bridge)

'I went on top/under it'

b. Puse el libro dentro suyo (#suyo=del cajón)

I.put the book inside (his-hers-them = of the drawer)

'I put the book inside it'

Stressed possessives also appear with neuter adjective constructions (31):

(31) Mi hija con cerca de 15 años se lleva todo el dia my daugher with almost of 15 years spends all the day

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This does not mean that languages that have dativization in these constructions also allow for postnominal possessives. For instance, dativization seems possible in Portuguese and French but postnominal possessives are not. Being nominal is a necessary, but not sufficient condition for complex prepositions to accept these stressed possessives.

As we mentioned, this is in most cases forbidden by prescriptive grammars, although it is common to all varieties and registers of Spanish. The only variation concerns the gender of the adjective, as we will see.

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en lo alto mia y abrazándome on the top mine.F and hugging me 'My almost 15-year-old daughter hugs me all the time; she's all over me' (https://www.facebook.com/malasmadres/posts/1788098604701560/)
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In complex PPs containing a determiner (as *a-l lado de* "to the side of") the weak possessive form appears (32a). In fact, in these cases, first and second person pronominal genitive *de* complements are not possible (32b), as with regular NPs headed by common nouns (32c). This clearly indicates that the two structures must be analyzed in the same fashion. Possessive determiners are also rare with inanimate grounds (33).

```
(32)
       a. A
                     lado/ a su
                                    alrededor
              su
          to
              his
                     side/ to his
                                    around
                             de ti/
       b. *Al lado
                                            *Alrededor de mí
           to the side
                             of you/
                                            *Around of me
       c. *El
                     libro
                             de mí
            the
                     book
                             of me
                                                   ??A
(33)
       a. Al
              lado
                             de
                                    la casa >
                                                                  lado
                                                          su
              the side
                             of
                                    the house
                                                                  side
                                                     to
                                                          its
       b. Alrededor de
                             la montaña >
                                                   ??A
                                                           su
                                                                  alrededor
         around
                     of
                             the mountain
                                                          its
                                                                  around
                                                   to
```

We claim that the possibility of taking stressed possessive adjectives is a direct consequence of the nominal head, which is part of the complex locational phrases in this study. In what follows, we will focus on a phenomenon of dialectal variation, which has to do, we will claim, with precisely the features of that nominal. Postnominal stressed possessives show gender and number agreement in Spanish (the possessive must agree in gender with the nominal *libr-o suy-o*, *cas-a suy-a*). Nevertheless, as mentioned, for some speakers, the gender of the possessive stressed adjective is always masculine with these complex locational phrases, whereas in other variants, it is always feminine. Importantly, this choice does not depend on the gender of the speaker or the locatum, and the variation obtains not only when the noun (*cima* "top", *frente* "front") is clearly present (34a), but also when the head is a preposition (*bajo* "down", *tras* "behind") (34b), and in non-transparent "adverbial" forms (*cerca/lejos*, "near", "far") (34c). Variation in all cases obtains irrespective of the biological gender of the speaker (see Marttinen-Larsson, 2022):

(34) a. Encima/enfrente tuyo/tuya on top/in front yours-M/F
 b. Debajo/detrás mío/mía below/behind mine-M/F
 c. Cerca/lejos mía/mío near/far mine-F/M

We saw in the preceding sections that so called Axial Parts contain a nominal element (presumably with a gender mark where available). Nevertheless, as probably has become clear by our examples, the dative alternation (and the possibility of taking gender marked adjectival possessives) goes beyond axial parts and extends to other expressions of non-directional locative meaning. We will further analyze the nominal nature of all the alternating constructions in what follows.

4.1. The internal structure of complex prepositions

As we have shown, many of the prepositional constructions we are examining are instances of Axial Parts. This being so, the nominal properties we saw can follow from the presence of the nominalizing head proposed for these categories, where the complement Ground DP is morphologically related to the AxPart in the same way that possessors are related to their possessee (Svenonius, 2006: 64 ff). Nevertheless, the class of alternating constructions is not restricted to Axial Parts but constitutes a larger paradigm. We can describe at least three types of Nominal complex prepositions (see section 1):

- A) With internal Nouns or Prepositions:
 - 1. *En-cima de* / *en frente de* on top of / in front of
 - 2. *De-bajo de/ de(l)-ante de / de-trás* under of / in the front of / behind of
 - 3. Al lado de / alrededor de¹¹ to the side of / around of
- B) Apparently non decomposable:

Cerca, lejos, dentro, fuera near far inside outside

- C) Headed by Relational Nouns:
 - 1. A la derecha / izquierda to the right/ left
 - 2. *En (el) medio* in the middle
 - 3. A la zaga to the back ('behind')

Apart from the ones just described, we have:

D) Prepositional phrases with neuter determiner plus Adjective:

A lo largo, a lo ancho en lo alto along the length along the width on the height of

E) Apparently non-locative:

En contra / a favor against/ in favor

Only (most of) group A can be properly analyzed as Axial Parts. To determine the property that characterizes across these classes and account for their behavior, we will examine similar complex prepositional phrases in Iranian Persian (I-Persian) that have formally been analyzed as *nominalized*.

We include this form here because originally al- is the preposition a plus the definite determiner and (de) rredor ("contour", "outline") is a noun. Nowadays it is analyzed as a single word by the speakers, but at the same time, as mentioned, it can take prenominal weak possessives, still preserving the article as part of the word: a su al rededor.

4.2. Iranian Persian prepositions. Larson and Samiian (2021)

Larson and Samiian (2021) (L&S) provide an insightful account for I-Persian locative non directional prepositions, within the framework of Jackendoff's (1977) "scopal nominalization" analysis of gerunds. The point of departure are the properties displayed by the morpheme Ez(afe) that occurs between nominal elements (nouns, adjectives, and some quantifiers) and their complements. Ezafe is, according to the authors, like genitive markers -'s,of in English (or de in Spanish), but it heads its own phrase (EzP) and cliticizes onto the preceding nominal stem. What concerns us here is the fact that, with some locative PPs, Ezafe occurs between the preposition and its object, thus indicating their nominal nature. It is important to underscore the fact that it is only locative prepositions that take Ezafe. The authors describe three types:

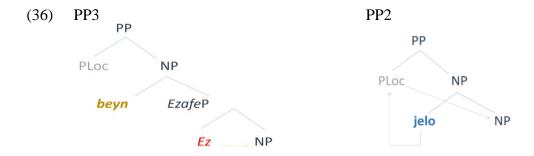
- 1) P1 (regular, case assigning prepositions) do not take *Ezafe*, and are thus [-N]: *az*, "from, *bâ* "with", *be* "to", *dar* "in/at/on"
- 2) P2s take *Ezafe* optionally, so they are "optionally nominal" ([±N]): *jelo* "in front", *bâlâ* "up", *ru* "on (top)"
- 3) P3 take *Ezafe* obligatorily, and are therefore described as [+N]: beyn "between", vasat "in-the-middle", dor "around", baqal "by".

We will be concerned here with P3 (and P2 to some extent). Some examples (taken from L&S) are provided below:

- (35) Larson and Samiian (2021: 119)
 - a. beyn-e man-o to P3 between-EZ you and me
 - 'between you and me'
 - b. jelo(-ye) Hasan P2 in front(-EZ) Hasan
 - 'in front of Hasan'

Their main point is that P3s contain relational NPs, complements of a (null locative) preposition. P3s are considered 'deprepositional nouns' and assimilated to deverbal nominals in -ion. P2s, on the other hand, can be either nominal or prepositional, like nominal/verbal -ing gerunds. As L&S explain, expressing this parallelism with deverbal nouns and gerunds "requires recognition of a common cross-categorial syntactic shape for verbal and prepositional phrases [...]; it also requires a broader view of nominalization than has been countenanced heretofore" (L&S: 158). The proposed structure for P3 beyn and P2 jelo is the one depicted in (36), where a relational noun (RN) and its complement occur as the object of a locative (null) preposition (PLoc):

We refer the reader to the mentioned work for more details.



According to these authors, this is a very commonly proposed scenario: a nominal containing a RN and its complement NP occurs as the object of a preposition; RN further incorporates into P (either overtly or covertly) and "the P-RN composite is later reanalyzed as a P itself, with the complement NP reanalyzed as its grammatical object" (L&S. 176). Optionality of Ez(afe) in P2 is a consequence of optional incorporation into the higher empty preposition, as indicated in the tree. Once incorporated, P2 can assign Case to the complement NP (this is indicated in by the arrow in (36)), so Ez- does not appear. Since the locative preposition (PLoc) is usually null, P3s are frequently homophonous with relational nouns grammatically active in I-Persian. L&S claim that relevant relational nouns are themselves nominalizers.

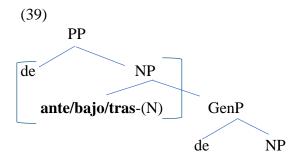
We will extend this analysis to Spanish alternating complex prepositions and propose the same internal structure: a locative P plus a Relational Noun are reanalyzed as a P, and the complement NP is consequently reanalyzed as its grammatical object. One difference with I-Persian cases is that in Spanish alternating locatives the introducing preposition (with which the RN reanalyzes) appears explicitly (de, en, a...). ¹³ In a nutshell, our proposal for the cases described above is the following:

a) Locative PPs with an internal Noun (en-frente, en-cima, a-l lado) are like I-Persian P3s. In this case, the locative preposition is explicit and the genitive marker de "of" behaves as the morpheme Ez(afe). The brackets are meant to indicate reanalysis:

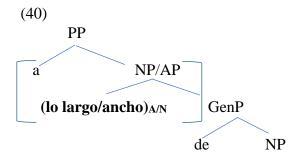


- b) Regarding PPs with an internal preposition as *de-bajo*, *de-trás*, *de-l-ante*, we would like to propose a (null) nominalizing suffix. These forms can also be pure prepositions, not taking any complements, so they may be parallel to I-Persian P2s, but it has to be noted that in this case the selecting locative preposition cannot appear (38a). Be this as it may, a piece of evidence for the presence of a nominalizer in *ante*, *bajo* and *tras* is that they can take typical nominal suffixes to form adjectives and verbs (38b, c). The structure we propose is (39). Again, the brackets indicate reanalysis:
- (38) a. Tras la cama ("behind the bed"), bajo la mesa ("under the table"), ante la casa ("in front of the house")
 - b. Tras-ero ("behind part"), baj-era ("fitted (sheet)", delant-ero ("frontal")
 - c. (Re)bajar ("to lower"), (Re/a)trasar "to delay"), adelantar ("to pass")

See also Fábregas (2007), Ursini (2013).



c) Finally, PPs with adjectives preceded by neuter article would also be parallel to P3s, since adjectives can also take genitive *de* complements. In this case, the presence of a (neuter) determiner indicates nominalization. As expected, only those with locational meaning allow for the dative alternation:



- (41) a. A lo largo /ancho de la casa
 Along /wide of the house
 'Along the length of the house'
 - b. Se extiende a lo largo de la sala / del siglo XX
 It extends to the long of the room / of the XX century
 - 'It goes along the length of the room / the XX century'
 - c. Se le extiende a (todo) lo largo a la sala / *al siglo XX
 SE DAT it-extends along the entire length to the room/ to the XX century

Following L&S, in a), b) and c) the relational noun or the nominalized preposition or adjective are reanalyzed with (overt) weak PLoc (a, en, de), giving rise to a complex P.

Within this paradigm, constructions with regular relational nouns, such as *a la derecha*, *a la izquierda*, *en (el) medio*, *en el centro*, *a la zaga* constitute different structures, in the sense that they are formed by full DPs, complement of prepositions and do not trigger any reanalysis process. In this case the presence of an agreeing determiner is forceful and prenominal possessives are also required:

Locative phrases containing cardinal points are also non-derived PPs selecting a full DP. In other words, *norte* (North), *sur* (South), etc., are not 'nominalized Ps' but

regular *locative* Nouns. For this reason, they do not take postnominal possessives (or possessive determiners) and do not give rise to dative alternation: ¹⁴

(43) a. Al norte/sur/este/oeste de Londres to the North/South/East/West of London b. *Se lo puse al sur

SE DAT I.put to.the South
d. *A su este / *Al norte suyo
to its East / to.the North its

Recall that (following L&S analysis of I-Persian) the head of locational Ps under study contain a (covert or overt) nominal marker, homophonous with a Noun in the a) cases. Since nominals in Spanish and Romance languages encode a mark for gender, it is expected that it is also present in nominal markers of alternating complex Ps under study. In the next section we will consider gender variation in strong possessives and make dialectal variation depend on these marks.

5. Gender of postnominal possessives. Dialectal variation

In this section we go back to the property of locative complex prepositions of allowing postnominal possessive adjectives. We consider dialectal variation that can be observed with respect to the gender of this possessive, which may show masculine or feminine marks depending on the dialect (see examples in (34) above). This is a widely described fact, especially by prescriptive grammars (see Eddington (2017) and references therein). All descriptions coincide in noting that no correspondence can be found between the gender of the stressed possessive and the biological gender of the participants. Speakers are, in fact, consistent in the sense that they follow a masculine or a feminine pattern throughout, depending on the region. As for the distribution, feminine forms are minoritarian cross-dialectally and are predominantly a (Southern) Peninsular usage, although some instances have been observed in Latin American varieties (see Eddington (2017), Marttinen-Larsson (2022) among others, for details).

Interestingly enough, gender marking on the possessive is also independent of the gender of the nominal element, in the cases where this is explicit. Also, as Salgado and Bouzouita (2017) note, in the relevant dialects what they call "(possessive) adjectives following adverbs" tend to be feminine regardless of whether those adverbs end in the feminine -a or the masculine -o mark. The author observes that:

"Since adverbs have no grammatical gender, it is interesting to note that when they are nominalized, they favor the masculine in about 93% of the cases. It is tempting to suppose that *encima*, *cerca* and *arriba* would be more prone to be modified by feminine possessive pronouns since they end in -a, but they are feminine to about the same extent as are other adverbs that do not end in -a". (Eddington, 2017: 53)

As an anonymous reviewer suggests, one reason for this could also be that cardinals always indicate positions with respect to static locations and both the dative alternation and the presence of strong possessives are mostly restricted to animates, which are intrinsically movable grounds.

Eddington (2017) stresses the fact that, as mentioned above, *al lado* and *alrededor* contain independently attested masculine nouns in all dialects and still take feminine possessives in the relevant variants. The same can be said for *cima* ("top") and *frente*, ("front"), attested as feminine nouns but still taking masculine possessive adjectives in the prepositional construction in most varieties. Forms like *debajo*, which end in *-o*, take feminine possessives in the relevant dialects also:

(44) a. spont., Málaga

Siéntate al laíto mía sit to the side.DIMIN mine.F

'Sit down next to me'

b. spont., Málaga¹⁵

No me gusta tener gente to el rato alrededor mía not me.DAT likes to have people all the time around mine.F 'I don't like to have people all the time around me'

c. (most extended varieties)

Está enfrente/encima mío It is in front/on top mine.M 'It is in front of me'

d. https://www.juntadeandalucia.es/averroes/centros-

tic/29009651/myscrapbook/bookcontents.php?page=45§ion=28&viewis=&username=

Me entró un poco de miedo, pero debajo mía había me.DAT entered a little of fear but under mine.F there were un montón de gente

a lot of people

'I was a little bit afraid, but below me there were a lot of people.'

With adjectives preceded by the neuter determiner, both feminine and masculine postnominal possessives can also be found, as in (44a) above and cases like (45):

(45) https://www.elplural.com/autonomias/andalucia/heroes-por-accidente_92313102 Me metí debajo de él, lo puse en lo alto mío, me I.put under of he him I.put on the top mine.M,

para que respirara

for that he.will.breathe

'I put myself underneath him, I put him on top of me so that he could breathe'

In accounting for this variation, we need to recall that we are assuming that alternating complex prepositions are nominalized. Our claim is that the abstract nominalizer proposed, as other nominalizers in Spanish, encodes a gender feature, which is the source for the gender marking of the postnominal possessive. Once reanalyzed with selecting (weak) P, that gender mark is no longer active, i.e. it is not the nominal but the reanalyzed prepositional category that triggers agreement. ¹⁶ In other words, we contend

Both sentences were uttered by a male speaker.

In prescriptive grammars such as RAE it is claimed that forms such as *detrás* are not nouns because constructions like **estoy a su detrás* with a possessive determiner, are not possible, as opposed to acceptable forms like *a su lado*. Nevertheless, as Eddington (2017) shows, that kind of construction is attested:

that when the complex expression is reanalyzed, gender is determined by the whole construction (*detrás*, *delante*, *al-lado*) and not just by the (P)N head, since P-RN composite is reanalyzed as a P itself. This being so, we propose that forms containing feminine nouns like *en frente*, *en cima* are taken as a model in some dialects, which preserve the feminine mark in all cases, whereas in majoritarian dialects it is the (unmarked) masculine gender that prevails. These also would follow the model of *al lado*, *alrededor*, with masculine nouns.¹⁷

One prediction of our analysis is that locative expressions containing "full-fledged" nouns, i.e. non deprepositional ones like *a la derecha/izquierda*, *en el medio/centro*, *al pie*, do preserve the noun's gender mark, and consequently postnominal possessives show agreement with the noun in all varieties. This prediction is borne out: in a wide non-restricted google search we only found around 300 instances of masculine (not all of them clear) vs. 4500 for the feminine with feminine nouns (46). Something similar can be said about those with masculine nouns as *al fondo de* "to the bottom of" or *al pie de* "at the foot of". Usually these take non animate complements, so strong possessives (and dative alternation) are odd, but possible (47). As expected, they always take the masculine possessive adjectives, i.e, *al fondo míaF*, *al pie míaF* are impossible in all dialects:

(46) a. (man speaker) Google search

Conocen al que esta a la derecha mia? know DOM.the who is to the right mine.F 'Do you know the person to my right?'

b. Google search

La niña que está a la izquierda mía... es BELLÍSIMA!!! the girl who is to the left mine.F is beautiful 'The girl on the right is beautiful'

(47) Twitter. https://twitter.com/FERGUEMO/status/1667668182444720129

...que no deje el arma al pie suyo that not leave the gun to.the foot his.M

"...do not allow a gun at his feet"

An interesting case is Galician. As noted by Silva Domínguez (1995) in this language forms like *diante*, the equivalent of *delante* "in front", always take feminine possessives (Carballo Calero (1966: 199)). We take the examples from Silva Domínguez (1995: 22-15)

Aunque por mi dentro me decía ...

'Even though inside of me I said ...' (Eddington 2017: 48)

⁽i) Ella también se para y yendo hacia él, se pone en su detrás y lo abraza.

^{&#}x27;She stands up too, and going toward him, she gets behind him and hugs him' Los dos caballos iban tranquilos por mi delante algo distraídos

^{&#}x27;The two horses were going calmly in front of me somewhat distracted' Apagó la luz se puso en mi encima...

^{&#}x27;He turned off the light, got on top of me...'

For an alternative based on the idea of an empty nominal place that the possessive agrees with, see Terzi (2008, 2010).

- (48)a. Bretaña, p. 16
 - por diante miña Ε eu véxoa descer and I by in front mine-F see.ACC go down
 - 'A I see her go down in front of me'
 - b. Goián, p. 217

Possessives and spatial expressions in Spanish

Estabamos todas sientadas nas sillas, ar nais detrás nosas, claro, como de huardiáns

'We were all sited in the chairs, in the mothers behind-oursF, of course, like guardians'

Silva Domínguez (1995: 16) provides a historical explanation for this fact and suggests that the introduction of the possessive pronoun was earlier and easier in adverbs like detrás, derriba, etc., which are derived from nouns diachronically, and whose vowels could have favored the feminine form of the paradigm. Be that as it may, in Galician the feminine form is the one chosen in alternating complex prepositions.

Within this picture, the forms a favor "in favor" and en contra "against" (which, as we saw, do not seem to be clearly locative, but still allow for the dative alternation and possessive adjectives), constitute an interesting case. As for their internal structure, both have homophonous nouns, masculine for the former (favor, "favor") and feminine in the case of the latter (contra, "opposite")¹⁸. It has to be noted that these nouns are particular because they are not relational and cannot straightforwardly be analyzed as axial parts or "body parts". In their prepositional use, even though they do not take a definite article, they behave like *al lado* or *alrededor* in admitting possessive determiners:

(49)a. Votó en de Juan / Le votó contra en contra (s)he.voted in opposite of Juan DAT voted in opposite '(S)he voted against Juan' b. Votó a su favor / en su contra (s)he voted at his favor in his opposite

In descriptive and prescriptive studies such as RAE/ASALE, this fact is clearly noted:

"En esta locución contra es, en realidad, un sustantivo; por ello, cuando este complemento es un pronombre personal (en contra de mí, en contra de ellos, etc.), es posible sustituirlo por el posesivo correspondiente, tanto antepuesto (en mi contra, en su contra, etc.) como pospuesto (en contra mía, en contra suya, etc.), ya que los sustantivos sí se combinan con posesivos [...]". [RAE/ASALE: Diccionario panhispánico de dudas]. 19

Interestingly, these forms contrast with al lado or alrededor in that the nouns inside them seem to preserve their active gender marking, since agreement with postnominal possessive is the norm, that is, en contra mía/tuya/suya-F is almost the only form found in (majoritarian) dialects (50a) which, recall, always take masculine possessives in

¹⁸ Contra is also a weak preposition in cases like contra la pared "against the wall".

[&]quot;In this locution contra is, as a matter of fact, a noun. This is the reason why when the complement is the personal pronoun (en contra de mí, en contra de ellos, etc.), it is possible to substitute it by the corresponding possessive, either before (en mi contra, en su contra, etc.) or after (en contra mía, en contra suya, etc.), because nouns indeed combine with possessive pronouns".

reanalyzed forms. On the other hand, cases of *a favor* with feminine adjectives are almost not found in feminine taking dialects (50b):

(50) a. spontaneous, Madrid

Se puso en contra tuya

SE stood against yours.F

b. Voté a favor tuyo/??tuya

I.voted at favor yours.M / yours.F

FUNDEU claims that the correct forms are *en contra de mí* "against of me", *en mi contra* "in my against" or *en contra mía* "against mine.F", but not *en contra mío* "against mine.M" (http://t.co/KzaTuEt8oW). It therefore seems that these forms preserve their nominal nature and do not reanalyze with the preposition. The fact that they do not contain a relational noun probably explains their special properties. We leave this question open here.

The generalizations that can be drawn for dialectal variation concerning gender of postnominal possessive adjectives in alternating complex prepositions are:

- (i) For those constructions headed by a relational noun (RN) or by a preposition with a (null) nominalizer (equivalents to I-Persian P3/P2), once reanalyzed with the selecting P (usually overt in Spanish, except for *cerca* and *lejos*), it no longer has an *active* gender mark. It is the reanalyzed form and not the internal nominal element that determines the gender of the postnominal possessive adjective.
- (ii) In some varieties (those most widely extended), the reanalyzed P-RN presents unmarked (masculine) gender (in accordance with those (few) forms that have internal masculine nouns); in some (minoritarian) varieties, the P-RN complex follows the pattern of forms with internal feminine nouns (*cima*, *frente*...) and preserves the feminine mark for the whole paradigm, including cases of (masculine) nouns with determiner like *al lado*, or *al rededor*.
- (iii) Forms with no reanalysis (and therefore with internal non derived nouns), do preserve the gender of the noun, as in *a la derecha mía*, *a la izquierda mía* in all varieties. *A favor* and *en contra*, with internal nouns with no determiner, show a particular behavior in the sense that they seem to preserve the gender mark of the noun (masculine in the former, feminine in the latter). 20

6. Conclusions

In this paper, we have described and accounted for the behavior of a type of Spanish (and Romance) complex non-directional locative prepositional expressions taking a genitive complement (marked with the genitive preposition de, "of"). Our point of departure has been a poorly studied alternation shown by these constructions: the mentioned genitive de-complement may appear as an argument of the main predicate and show dative case (see (1)). We have analyzed the dative structure in terms of 'Possessor

An anonymous reviewer suggests that the use of feminine in all the paredigm in relevant dialects could be related with the phenomenon of assignment of feminine in non-referential contexts such as in Spanish idioms like *liarla parda*, *amarla gorda*, *diñarla*, *pifiarla*, etc. (S)he also points out that feminine marking is also used to show courtesy in Italian second person formal *lei* (Lit. "she"), Valencian *jo mateixa*, ("I myself_F") used for male referents, etc. There might be a semantic relation between the feminine of the possessive and lack of a concrete referent. This is a very interesting question that we leave open here.

Raising' and claimed that it instantiates a case of what we have called *Inalienable Location* structure. Based on Larson and Samiian (2021) typology of nominalization in prepositions, we have decomposed these locative complex structures and propose a (null or overt) nominalizer which accounts for the dative alternation and also explains the presence of postnominal possessive adjectives. In the last section we have addressed dialectal variation shown by these adjectives regarding gender, and make it follow from the reanalysis of P and the relational noun to form a prepositional element. Our proposal is that the gender of the possessive is determined by the nominalizer and the level of grammaticalization of the nominal head.

Acknowledgements

We would like to thank the audiences of the VI Spanish Dialects Meeting (Universidad de Alcalá, 2022). Our deep gratitude to Richard Larson for comments and inspiration. Thanks to Michael Newman for helping us to proofread and correct the paper. We also thank the editors of this volume for making it possible. Research underlying this paper has been partially funded by Project PID2021-123671 of the Spanish Ministerio de Ciencia, Innovación y Universidades. Errors are all our own.

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