

Copular alternation in Spanish and Catalan attributive sentences*

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ABSTRACT. This paper deals with copular selection in Spanish and Catalan attributive clauses. We develop an analysis of the copular alternation that is based on the relation of coincidence. Locative attributives, the class of copular sentences that has received less attention in the literature, are analyzed in detail. It is concluded that locative attributives express an abstract path; that is, a terminal coincidence relation between a figure (the entity that is located) and a ground (the location). The use of *estar* in these sentences is justified by the fact that this copula has an interpretable terminal coincidence feature that can license its uninterpretable counterpart in the attributive clause. Nevertheless, *ser* –the default copula– can also co-occur in locative attributives when the notion of bounded path is already incorporated in the entity that is being located. This is the case in Catalan, which uses a –a preposition that expresses a limit– instead of *en* –a central coincidence preposition. The copula *ser* also appears in the location of eventive entities and in path noun constructions. The terminal coincidence feature of *estar* can also superimpose a delimiting aspectual boundary to the attributive relation when there is no uninterpretable terminal coincidence feature to value in it. In these cases, evidential and sensorial readings are conveyed. Finally, a possible analysis is sketched for the differences in the selection of the copula between Spanish and Catalan with participles and perfective adjectives. It is suggested that the selection of *estar* in these cases may be due to the fact that both classes have a weaker functional structure in Spanish than in Catalan.

KEY WORDS. Attributive sentences, copular verbs, locative attributives, aspect, terminal coincidence, individual-level and stage-level predicates.

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1. Introduction

The existence of an attributive system with two copular verbs (*ser* and *estar*) is one of the most characteristic features of Iberian Romance languages. From a typological perspective, having more than one copula is by no means a strange phenomenon: many languages in the world share this trait, as is widely attested in the literature (see for instance Pustet 2003). However, multi-copular systems can be organized following different functional criteria. In some cases (as in Lakota or Akan), the opposition expresses the contrast between ascriptive and identificational attributives. In others (Irish, Japanese), there is at least one copula specifically linked to locative or temporal attributives. In all the above-mentioned cases, the line dividing the use of the corresponding copulas seems clear-cut: there is a complementary distribution between them and a given attribute can generally be combined with a single copula only. By contrast, the multicopular system of Iberian Romance shows a more complex behavior, as in many cases the copular alternation with the same attribute is possible, giving rise to subtle differences in the meaning of the sentence that are not easy to characterize in an overall theory.¹ As Maienborn (2007: 240-241) rightly points out,

It has been repeatedly claimed —and Pustet (2003: 49ff) subscribes to this view— that the general principle underlying the alternation between the copulas *ser* and *estar* is that *ser* is used for permanent properties while *estar* is reserved for temporary properties. Yet, despite its popularity, hispanists have always emphasised that this generalisation can be nothing more than a mere rule of thumb for selecting *ser* or *estar*. It must be admitted that all attempts to expand this rough correspondence into a full-fledged explanation of the *ser/estar* puzzle have failed up to now.

The aim of this paper is to move a step forward in the understanding of the opposition between *ser* and *estar*. We will focus our attention on copular locatives, a subset of attributives that, despite presenting interesting

¹ Pustet (2003) mentions Barasano, Ndyinka, Limbu, Maltese and Nigerian Pidgin as languages that have a copular system similar to the Iberian Romances, based on the opposition between permanent and temporary properties. But it is highly doubtful that this is the core distinction between the two copulas in Iberian Romance, as has been pointed out by many linguists (cf. Marín 2010).

alternations in the realization of the copula, has been studied much less in the literature than adjectival attributives. The data analyzed will correspond mainly to Spanish, but we will also study some contrasts with Catalan that give additional support to our proposal. The basic idea we will adhere to is that *estar* includes an interpretable feature of terminal coincidence that is processed by the computational system in two possible ways: (a) as a means to license an uninterpretable feature of the same nature in the attributive predication, or (b) by adding an external delimiting aspectual boundary to the attributive relation. In the first case, an agreement relation is established between *estar* and the attributive predication, which predicts the close correlation between this copula and the perfective or temporary lexical content of certain attributes. In the second, it is the very copula itself that introduces an aspectual delimitation in the state denoted by the attributive relation, giving rise to all the readings that cannot be directly accounted by the lexical nature of the attribute.

It must be emphasized that our proposal assigns a unitary analysis to *estar*, but its concrete impact in the interpretation of the copular sentence is conditioned by the nature of the attributive relation. As opposed to *estar*, our analysis conceives *ser* as an aspectually unmarked copula, but, given the existence of *estar* in the system, the presence of the former can coerce a lexically perfective attribute like *casado* ('married') into a secondary, unbounded interpretation.

The paper is organized as follows: in §2 we will focus on the data provided by locative and temporal attributives and will propose our analysis to capture the complex distribution of copulas in these constructions; in §3 we will consider the particular behavior of event and path nominal phrases with respect to copular selection in locative attributives; and, finally, §4 will draw on the main conclusions of the study. In §§ 2.3 and 3.3, two interesting asymmetries between Spanish and Catalan that remained unexplained will be analyzed and reduced to the tenets of our proposal.

For reasons of space, we do not include a critical revision of previous proposals seen in the literature. The reader will find a comprehensive overview of them in Brucart (2010), Fábregas (2012), Leonetti (1994) or Holtheuer (2011).

2. The analysis of locative attributives

In the study of copular alternation, locative attributives have received less attention in the literature than adjectival attributives. However, in order to properly establish the boundary between *ser* and *estar*, it seems important to study locative uses of *estar*, as they were the original basis for its development as a copular verb.² Strictly speaking, it would be unfair to say that the study of locative attributives has been systematically neglected in the literature. Authors like Demonte (1979), Franco (1984), Zagona (2011), Fábregas (2012) or Camacho (2012) have devoted a fair amount of attention to this subclass of copular sentences. But it is true that priority has been given to the study of adjectival attributives. Holtheuer (2011: 34) justifies this focus as follows:

[...] it is the ‘copula + adjective’ construction that is the most interesting to be investigated because while it is relatively easy to predict which verb must be used in locative, nominal and prepositional phrases, explaining the choice of *ser* and *estar* in adjectival predicates is rather complex.

However, locative attributives pose interesting challenges to any explanatory theory of copular alternation. In fact, it has been frequent in the grammatical tradition to state that they do not take part in attributive constructions and to analyze the locative complement not as an attribute, but as an adjunct, which implies admitting the existence of predicative uses of *ser* and *estar*. In this approach, *ser* would be a predicate of existence with a meaning equivalent to that of *suced*er (‘to happen’) or *tener lugar* (‘to take place’), whereas *estar* would adopt the meaning of *hallarse* (‘to be situated’), *ubicarse* (‘to be located’) or *situarse* (‘to be situated’).³

² In her study of the corpus of Portuguese notarial documents from the Monastery of Santa Maria de Alcobaça (dating from between the 13th and 16th centuries), Carvalho (2010: 349) points out that “the verb *estar* prevailed first over the verb *ser* in locative attributive structures and only later in transient attributives” [translation mine: JMB]. The same conclusion arises from Spanish and Catalan data: see Falk (1979) and Vañó-Cerdá (1982). Clements (2006: 163) also considers this to be currently the basic meaning of *estar*: “In modern Spanish, the core meaning of *estar* is ‘to be located’, the essential notion here being locate in space”.

³ Clements (2006: 162-165) neatly separates locative uses of *ser* and *estar* from attributive ones. For this author, the verbs of the first class of sentences are main intransitive predicates. Fernández Leborans (1999) also distinguishes intransitive from attributive uses of copulas, although she mentions in passing the possibility of unifying the two values under the heading of attributives.

Nevertheless, the predicative analysis of locative attributives is difficult to sustain, as it seems obvious that the location or temporary anchorage constitutes a property that can be attributed to certain entities, as is shown by the fact that these kind of complements can function as secondary predicates:

- (1) a. El jefe quiere a Luis *en su despacho* a las seis
the boss wants Luis in his office at six
'The boss wants Luis to be in his office at six o'clock'
- b. Con tu madre *en casa*, nos divorciaremos
with your mother in home CL divorce-FUT-1PL
'If your mother lives with us, we will get divorced'
- c. En la pantalla del ordenador estoy viendo a María *en Tokio*
on the screen of the computer am seeing Mary in Tokyo
'On the screen of the computer, I can see Mary in Tokyo'
- d. Prefiero esos altavoces *en la pared de enfrente*
prefer-1SG those loudspeakers on the wall opposite
'I prefer those loudspeakers on the opposite wall'

Moreover, many locative complements have been lexicalized and are usually used as attributes:

- (2) *en cama* ('sick'), *en la luna* ('absent-minded'), *en vilo* ('on tenterhooks'), *en ascuas* ('on tenterhooks'), *en cueros* ('naked'), *en horas bajas* ('downhearted'), *en baja forma* ('unfit'), *a punto* ('ready')

Since locative complements can function as secondary predicates, it seems natural to accept that they can also be attributes of copular sentences. Their distribution parallels that of stage-level predicates, as shown by (1a-c).⁴ It is true that the entities that usually appear in predications like (1)

⁴ On the distinction between individual-level predicates (ILPs) and stage-level predicates, see Diesing (1990) and Kratzer (1995). The context of (1d) accepts both ILPs and SLPs, due to the fact that the complement of *prefer* can denote imaginary entities with any class of properties different than the real ones: *Lo hubiera preferido más alto* ('I would prefer him to be taller'). For an updated analysis of the copular alternation in terms of the contrast between ILPs and SLP, see Arche (2006).

are mobile, but it is not impossible to find the same syntactic pattern with fixed inanimate entities:

- (3) a. Con el auditorio en el centro de la ciudad, el público aumentará
with the auditorium in the center of the town, the public
will increase
'With the auditorium in the center of the town, the public will
increase'
- b. Con el auditorio a 50 metros de su casa, Juan lo tiene fácil para
ir a los conciertos
with the auditorium at 50 m from his house, Juan it has easy to
go to the concerts
'With the auditorium 50 meters from home, it is easy for Juan to
go to the concerts'

Spanish uses *estar* to localize either mobile or fixed entities in the most natural version of locative attributives.⁵ Instead, in Portuguese a distinction is established in locative attributives between movable and fixed entities. For the latter *ficar* ('to stay') is used, as shown in the following sentences, taken from Duarte (2003: 540)⁶:

- (4) Port. a. O João está em casa logo à tarde
the João is_{estar} in home later in the afternoon
'João will be at home later this afternoon'
- b. O livro está em cima da estante
the book is_{estar} on top of shelf
'The book is on the shelf'

⁵ It must be noted, however, that with both kinds of individuals –but, most frequently with fixed entities– *ser* is also possible. In § 3.2 we will argue that this is a different pattern of locative attributives that requires additional conditions to be licensed.

⁶ As in Spanish, *ser* is also possible in Portuguese locative attributives, provided that the subject has an event interpretation (i) or is associated with a path reading, as in (ii-iv):

- i. O jogo é na casa do adversário ('The match is on the opposing team's field')
- ii. O hotel é na praia ('The hotel is on the beach')
- iii. A casa é mais adiante ('The house is further ahead')
- iv. O castelo é em Portugal ('The castle is in Portugal')

Examples (ii-iv) taken from a website (http://en.wikibooks.org/wiki/Portuguese/Contents/Ser_and_estar).

- c. A Torre de Belém fica em Lisboa
the tower of Belem stays in Lisboa
'The Tower of Belem is in Lisbon'

Although *estar* is not used in Portuguese locative attributives with subjects that express fixed entities, it is important to note that the alternation that exists between *estar* and *ser* in these Spanish constructions is the same as that attested in Portuguese between *ficar* and *ser* and that the unavailability of *estar* in these contexts does not imply a generalized use of *ser*:

- (5) Sp. a. Ese barrio {está/ es} a tres kilómetros de aquí
that neighbourhood is_{estar/ser} at three kilometers from here
'That neighborhood is three kilometers from here'
Port. b. Esse bairro {fica/ é} a três quilômetros daqui
that neighborhood stays/ is at three kilometers from-here
'That neighborhood is three kilometers from here'

2.1. The structure of attributive constructions and the copular contrast

Since Stowell (1983), it has generally been assumed that the structure of attributive sentences includes a small clause that includes the subject and the attribute. In this analysis, copular sentences are viewed as atelic unaccusatives. The preverbal position of the subject is obtained by means of internal merge of the small-clause argument into [Spec, TP]:⁷

- (6) a. [_{TP} Luis es [_{vP} es [_{aP} Luis feliz]]]
b. [_{TP} Luis está [_{vP} está [_{aP} Luis contento]]]

An obvious advantage of this analysis is that it regards the predication formed by the subject and the attribute as a constituent and it therefore

⁷ We use the label *aP* in (6) to reflect the idea that the projection that heads the small clause is a functional projection of the category that corresponds to its predicate –in the case at hand, an adjective, but it could be *pP* or *nP*. Hence, the counterpart of *aP* in sentential predications is *vP*. However, for expository reasons, later we will unify the labeling of the functional head of the attributive small clause using the notion of Relator (R).

allows number and gender agreement between the two to be treated as a local structural relation. The raising of the subject to [Spec, TP] is frequently associated with Case valuation, but given that Iberian Romance languages allow free inversion of the subject, the explanation cannot be sustained on Case grounds with any degree of certainty.⁸

An aspect that is much debated in the literature is the internal structure of small clauses. Some linguists (such as Moro 1997) advocate for a direct predicate-argument relation in these constructions. Others (such as Bowers 1993) argue that a functional projection must exist that establishes the relation between the two components of the predication, in line with anti-symmetric requirements (Kayne 1994).

Bowers (1993) was the first to propose that all predications must have a functional head. He proposed to term it *PredP* (predication phrase), a precedent of *vP*. Only in some cases is the functional predicative head independently lexicalised, as in (34b), where the preposition *por* functions as a relational link between the subject and predicate of the small clause. In contrast, in (34a), with the same meaning, the corresponding head is covert:

- (7) a. Considero a [Miguel \emptyset un buen amigo]
 consider-1SG to Miguel \emptyset a good friend
 'I consider Miguel a good friend'
 b. Tengo a [Miguel *por* un buen amigo]
 have-1SG to Miguel for a good friend
 'I consider Miguel a good friend'

In the same vein, Den Dikken (2006) proposes including a relational element in all small clauses, which he calls *relator*. This unit, which is the functional head of the predicative projection, takes a complement as internal

⁸ The difficulty that *ser* sentences allow postcopular subjects has been presented by Gallego & Uriagereka (2009) as deriving from the categorial-thetic distinction in attributives. These authors argue that subject inversion is only possible with *estar*: *Estará el hombre tonto* ('The man must be feeling silly'). However, the modalized nature of the hypothetical future casts doubts on this example, as it would be possible to conceive the subject inversion as the result of the raising of the copula to a higher modality projection in the functional structure of the sentence. On the other hand, while it is true that subject inversion with *ser* is more difficult than with *estar*, some cases of the former are attested: *Era yo muy joven* 'I was very young' (Excélsior, 05/09/2000); *Era yo pequeña* 'I was little' (Oral corpus, Conversation 3, University of Alcalá de Henares); *Era yo muy amigo de Yandiola* 'I was a close friend of Yandiola' (Pedro Ortiz-Armengol, *Aviraneta o la intriga*). These examples are taken from CREA database, searched 05/20/2012.

argument and a subject in its specifier position:

(8) [_{RP} Miguel [_R Ø/ *por* [un buen amigo]]]

Den Dikken considers the copula the realization of R in attributive sentences (a *linker* between subject and attribute). His proposal reflects the traditional intuition that copulas are non-semantic elements that function as carriers of temporal morphemes of the clause. Our analysis departs from this idea, as we assume that the copula is derivationally merged above the predicative small clause, in *vP* or, as proposed by Zagona (2008), in a projection *AspP*. Our decision is based on two reasons: (a) the existence of two copulas in Iberian Romance languages, with aspectual differences between them, and (b) the alternation between *ser* and *estar* in locative attributives.

Since we do not treat copulas as direct instantiations of R, it is necessary to clarify how we characterize the functional head R of the small clause. Some authors (Uriagereka 2001; Zagona 2008; Gallego & Uriagereka 2009) have proposed to analyze *estar* as the result of merging *ser* with an abstract preposition. In the last of these references, this element is characterized as being a preposition of terminal coincidence.⁹ This prepositional component would be the reason for the differences between the two copulas in Iberian Romance languages:¹⁰

(9) *estar* = *ser* + P_T

We will endorse a part of this proposal, namely we will assume that

⁹ The notions of central and terminal coincidence come from cognitive grammar (Talmy 1978) and were introduced into generative grammar by Hale (1986). In this seminal study, it is shown that a significant number of grammatical contrasts in Warlpiri (an Australian aboriginal language), embracing phenomena as different in principle as Case, aspect, predication and complementizer systems, can be reduced to the opposition between central and terminal coincidence. Coincidence is defined as a spatial, temporal or identity relation between two elements, one functioning as a figure and the other being a ground. In central coincidence, the figure coincides with the ground at the center of the trajectory. In terminal coincidence the figure and the ground do not coincide at the center of the trajectory, so the path is convergent or divergent.

¹⁰ The idea of regarding *estar* as the result of merge between *ser* and a preposition is reminiscent of Benveniste's (1960) proposal of deriving *avoir* ('to have') from the combination of *être* ('to be') and a preposition in order to explain the alternation in French between *J'ai un livre* ('I have a book') and *Le livre est à moi* ('The book is mine', lit. 'The book is at me').

In § 3 we will show that in (11a) the terminal coincidence relation is licensed inside the attributive clause. As a consequence, the copula that emerges is the unmarked one: *ser*. Therefore, (11a) has in common with (10) the fact that the realization of the copula directly derives from the attributive relation. By contrast, in (11b) the copula introduces a content (terminal coincidence) that is not present in the underlying predicative relation, coercing the predicate to be interpreted as delimited and triggering either evidential or aspectual reading¹¹:

- (13) a. La película estuvo divertida
the film was_{estar} funny
'The film was funny'
b. Luis estuvo estudiando toda la tarde
Luis was_{estar} studying all the afternoon
'Luis was studying all afternoon'
c. La manifestación está en la Plaza del Senado
the demonstration is_{estar} in the square of-the senate
'The demonstration is at Senate Square'

The distribution of the facts presented in (10) and (11a) derives from a regular mechanism of valuation of features. In particular, we will assume that R_T has an uninterpretable feature $[uR_T]$ that must be valued by means of a relation with an interpretable feature of the same sort contained in the specifier of its own projection (11a) or, when there is none in it, in the head of the higher functional projection, which is the position where the copula is merged (10a). Likewise, the main characteristic of *estar* is that it

¹¹ Obviously, (13b) is not an attributive sentence. As we limit our analysis to attributives, we only take into consideration aspectual uses of *ser* and *estar* in order to show that a unified theory of copular alternation should integrate them. *Estar* is likely merged in (13b) in a different position, probably higher in the functional structure of the clause, but what is important to highlight here is that its contribution is essentially the same: establishing a delimitation over the central coincidence relation expressed by the gerundive clause. As opposed to *estar*, *ser* cannot coerce a terminal coincidence relation into an unbounded reading. However, in the following example, taken from *Diario de Navarra* (01/17/2012) *ser* is anaphorically related to a previous terminal-coincidence attributive: *Según ha asegurado, en ese momento Javier Martínez "estaba muy contento, como era siempre"* ('As she has declared, at that moment Javier Martínez "was very happy, as he always was"'). However, it would not be possible to say **Javier Martínez era siempre contento*. In (13c), *estar* introduces a secondary delimitation into the attributive small clause, so that the sentence only refers to an internal phase of the demonstration event.

contains an interpretable feature of terminal coincidence [iR_T] that is able to value its uninterpretable counterpart in R_T , if there is one. But if such a counterpart is absent, it can also superimpose a delimited reading over the lower predication (11b). Besides *estar*, the elements that can license the feature [uR_T] are event and path nominal phrases in [Spec, RP].

To sum up, our analysis regards *ser* as the unmarked copula and conceives *estar* the carrier of a terminal coincidence relation. Therefore, the only difference between the two copulas lies in the feature [iR_T] included in *estar*. On the other hand, the contribution of the copula to the global interpretation of attributive constructions is substantial, since it is the element that fixes the stative interpretation of the attributive relation. In languages with only one copula, like English, this is its fundamental function (cf. *John was/ became tired*), since its presence is not directly linked to the feature valuation of the relational element that heads the attributive relation.

2.2. Locative attributives as terminal coincidence constructions

One important aspect of our proposal that needs to be independently justified is the characterization of locative attributives as terminal coincidence constructions. This assumption might sound strange, as the typical preposition occurring in these constructions is *en* ('on, in'), clearly a central coincidence element. In fact, Zagona (2008, 2011) suggests that *en* is the preposition that licenses the presence of *estar* in these constructions. But it is worth noting that locative attributes can also contain other prepositions expressing not only central, but also terminal coincidence (in many cases, they form part of axial constructions that express scales):

- (14) a. Tu hermano está en Lisboa
 your brother is _{*estar*} in Lisbon
 'Your brother is in Lisbon'
- b. La casa está a 100 metros del mercado
 the house is _{*estar*} at 100 meters from the market
 'The house is 100 meters from the market'
- c. El concierto es a las tres
 the concert is _{*ser*} at the three
 'The concert is at three'

- d. El concierto es en el auditorio
the concert is_{ser} in the auditorium
'The concert is in the auditorium'

Unlike Zagona (2008, 2011), we do not assume that the preposition *en* ('in, on') is the unit that licenses the presence of *estar* in locative attributives. Consequently, we do not consider it the phonological instantiation of R in these clauses. The existence of constructions where *en* is combined with *ser*, as in (14d), shows that the presence of this preposition does not automatically trigger the appearance of *estar*. In our opinion, the prepositions heading the attribute in (14) express the localization of the limit that corresponds to the abstract path that R represents by means of the terminal coincidence feature.

So let us now focus our attention on the preposition *en* ('in' on'), which prototypically expresses central coincidence. Alternations such as the ones in (15) will be relevant for our argumentation:

- (15) a. El ladrón entró {en/ a} la casa
the thief entered {in/ at} the house
'The thief entered the house'
- b. Voy en ca doña Manuela a unas pruebas
go-PRES-1SG in house Mrs. Manuela to some tests
'I am going to Mrs. Manuela's house to do some tests'
(Eladia González, *Quién como Dios*)
[Colloquial use in some Spanish dialectal variants]
- c. El polideportivo está {en /a} las afueras
the sports-center is_{estar} {in/ at} the outskirts
'The sports center is {in/ at} the outskirts'
- d. Estamos {en puertas/ a las puertas} de una nueva era
are_{estar} -1PL {on gates/ at the gates} of a new era
'We are at the gates of a new era'

However, before analyzing the contrasts in (15), it is worth making some observations about the meaning of certain prepositions. In the literature on English, it is commonly accepted that prepositions like *in*, *on*, *under* or *behind* are ambiguous between a directional and a locative meaning, as in (16):

(16) a. Oscar jumped in the lake

b. He kicked the ball under the table

In the directional reading of *in* and *under*, the PPs headed by these prepositions denote the endpoint of a path whose origin is external to the lake and the table, respectively. So Oscar is outside the lake when he jumps and the ball is not under the table at the moment of kicking. In the locative interpretation, the events take place entirely in the lake and under the table, respectively.

However, Gehrke (2007) convincingly argues against the idea that the origin of the ambiguity in these cases is in the locative preposition. For her, the directional reading is made possible by the fact that the verbs *to jump* and *to kick* include the notion of a directional path in their meaning. Therefore, the ambiguity is strictly syntactic. If the PPs in (16) denote the goal of the path, the directional reading is obtained. Instead, if they refer to the event localization, the locative interpretation arises. So the difference is ultimately structural: in the first case the PP is an argument selected by the predicate; in the second, it is an adjunct.

Taking this into account, we can consider again the examples in (15). Although there is no ambiguity in these cases, we think that they reproduce the same pattern. This is straightforward in (15a, b), since the verb includes the notion of directed movement. In these examples, the directional preposition *a* ('to') can be commuted to the locative *en* ('in', 'on'), without affecting the directional interpretation of the sentence. In our opinion, (15c, d) reproduce the same phenomenon: the copula *estar*, by means of its feature [iP_↓], licenses the path interpretation of the event and makes possible the presence of the central coincidence preposition *en* heading the locative complement. Zagana (2011) notes that there is an incompatibility between the notion of path and the presence of *estar*.¹² We think that this results from the fact that the element that denotes the notion of abstract path in these constructions is the copula itself and, as a result, the attribute can contain a central coincidence element that represents the goal of the path, as happens in movement verbs.

¹² However, such incompatibility apparently needs some qualification, since in cases like *El monumento está tres kilómetros río arriba* ('The monument is three kilometers upstream'), *La casa está al otro lado del río* ('The house is on the other side of the river') or *La fuente está a la derecha del mirador* ('The fountain is to the right of the viewpoint') the locative attribute is vectorial and denotes a point or region on the basis of a path.

A basic question that must be answered in our analysis is how the notion of path is justified in locative attributives. As already noted, we are not talking about a physical path, which would imply material displacement of the subject, but rather about an abstract path, whose motivation is to locate a figure (the subject) by associating it with a ground (the entity included in the attribute) by means of a terminal coincidence relation.

An interesting property of *estar* attributives is that they admit temporal adjuncts expressing either duration (*durante X tiempo*, 'for X time') or culmination (*en X tiempo*, 'in X time'). The compatibility with the latter shows that the state that they refer to begins at a point in a path that is interpreted as a preparatory phase:¹³

- (17) a. Estaremos en París en tres horas
be_{estar} -FUT-1PL in Paris in three hours
'We will be in Paris in three hours time'
b. Estuvo lista en media hora
was_{estar} -PAST-3SG ready-FEM in half hour
'She was ready in half an hour'

2.3. An apparent counterexample in Catalan and the contrast between *en* and *a*

An important difference between Spanish and Catalan attributive sentences concerns the selection of the copula in locative sentences. Catalan uses *ser* in these constructions, as opposed to Spanish:

- (18) a. Cat. En Joan és a casa/ Sp. Juan está en casa
Joan/ Juan is_{ser/estar} at/in home
'Joan/ Juan is at home'
b. Cat. La taula és a la cuina/ Sp. La mesa está en la cocina

¹³ It is also possible to attest cases of *ser* attributives that admit the temporal adjunct *in X time*: *Será ciudadano alemán en media hora* ('You will become a German citizen in half an hour'), spoken by an immigration officer to someone applying for German nationality. However, forcing a reading of result state is far more difficult with *ser* than with *estar*.

the table is _{ser/estar} at/in the kitchen

'The table is in the kitchen'

c. Cat. París és a França/ Sp. París está en Francia

Paris is _{ser/estar} at/ in France

'Paris is in France'

Catalan uses *ser* for localizing individuals, either animate (18a) or inanimate (18b, c), fixed (18c) or movable (18a, b).¹⁴ Obviously, it would be nonsensical to suppose that the Catalan locative attributives have the opposite characteristics from Spanish ones, ILPs in the former case and SLPs in the latter, or that the former are imperfective and the latter, perfective. Any account expressed in these terms would be absolutely arbitrary.

In order to have a better approach to the Catalan data, it is worth considering the following contrasts:

(19) a. Cat. En Joan és {a/ *en} casa

Joan is _{ser} {at/ *in} home

'Joan is at home'

b. Cat. La taula és {a/ *en} la cuina

the table is _{ser} {at/ *in} the kitchen

'The table is in the kitchen'

c. Cat. En Joan està en plena joventut

John is _{estar} in full youth

'John is in full youth'

As (19c) shows, Catalan also has the locative preposition *en*, but it tends to be incompatible with *ser*. In this example, the preferred copula is *estar*, although instances with *ser* are also attested. Presumably this is due to the fact that the attribute of this sentence includes an idiom (*en ple(na) X*, 'in full X') that obligatorily contains the preposition *en*. Therefore, there

¹⁴ A qualification is in order here. In Valencian, a southern variant of Catalan, locative attributives take *estar* and the preposition that heads the attribute is *en*, like in Spanish. It is interesting to note that the combination of *estar* with *a* is not attested in this variant. This reinforces the idea that there is a correlation between the copula and the preposition.

are two concomitant differences between Spanish and Catalan in locative attributives: the copula and the preposition that heads the attribute.

There is no agreement in the literature when it comes to characterizing the semantic import of the preposition *a*. Morimoto (2001: 75) assigns the description in (21) to it, in comparing the minimal pair of (20):

- (20) Juan tiró la pelota {en/ a} la papelera
Juan threw the ball {in/ to} the wastepaper-basket
'Juan threw the ball {in/ to} the wastepaper basket'

- (21) A: function of path of destination. The area indicated by the object or place of reference expresses the point of arrival of the path.

Demonte (2011) also assigns directional content to this preposition. By contrast, Fábregas (2007: 178) argues against the idea that *a* properly denotes a path and points out that it is the lexical directional meaning of the verb that licenses the directional interpretation in (20). For this author, *a* is the Spanish equivalent not to the English *to*, but rather to *at*, whose meaning is the contact with a boundary:

- (22) Locative *a* denotes a place relationship where the figure is in contact with (at least) one point of the boundary of the ground.

Indeed there are many instances of PPs headed by *a* that indicate contact with a limit (*al lado* 'next to', *al borde* 'on the verge', *al límite* 'on the edge', *al margen de* 'on the fringe', *al final* 'at the end', *al máximo* 'to the utmost'). Moreover, combined with elements that express direction, *a* can head vectorial phrases (*a la derecha* 'to the right', *al norte* 'to the north').

Likewise, Huddleston & Pullum (2002: 650) characterize *at* in English as a locative preposition, together with *in*, which expresses contention, and *on*, which denotes support. The peculiarity of *at*, according to these authors, is that the denotation of a punctual location is conceived as the result of an implicit path:

The preposition *at* provides a particularly clear example of the processes of abstraction

involved in the expression of spatial relationships. The function of *at* is to describe two entities as having precisely the same spatial location, each entity being construed as a point. This means that some degree of idealisation is inevitably inherent in its use. [...] There is further evidence for saying that *at* involves the notion of path. A sentence like *The cyclists are at Dijon* would be only natural if Dijon were one of the series of points on a journey (such as the Tour de France cycle race). Otherwise, the size of a city like Dijon in relation to a group of cyclists would make it much more natural to conceive of the city as a container rather than as a point (hence *They took this photo when they were in Dijon*).

Following Fábregas (2007) and Huddleston & Pullum (2002), we will take the idea that though *a* does not directly denote a path, it implies one by the fact that its content includes the notion of contact with a boundary of the ground. The intimate relation between *a* and the notion of path is also made evident in contrasts like (23), where the verb is covert due to deictic recoverability:

- (23) a. Sp. Ese libro, en el tercer anaquel
this book, on the third shelf
'That book is on the third shelf/That book goes on the third shelf'
- b. Sp. Ese libro, al tercer anaquel.
this book, to-the third shelf
'That book goes on the third shelf'
- c. Cat. Aquest llibre, a la tercera lleixa
this book, to the third shelf
'That book is on the third shelf/That book goes on the third shelf'

Note that (23a) can express the path that the hearer has to take in order to get the book's current location or the path to follow in order to put away the book, for instance, in a library. In the first reading, the book is not associated with the displacement, since it is possible to conceive (23a) as the instruction given by a librarian to a reader that has asked her how to find a certain book. By contrast, (23b) only allows the interpretation associated with the movement of *the book*. As predicted by the account we are proposing, in the corresponding Catalan sentence with *a* (23c) both interpretations are possible.

We think that what licenses the use of the unmarked copula *ser* in

Catalan in locative attributives is the implicit notion of path associated with the preposition *a*, as represented in (24), where $\sqrt{\quad}$ stands for the valuation of the corresponding uninterpretable feature:

- (24) a. Sp. *estar* + *en* = Cat. *ser* + *a*
 b. Sp. $[_{VP} \textit{estar} [_{IRT}] [_{RP} \dots [_{R'} R_T [_{\sqrt{URT}}] [_{PP} \textit{en} \dots]]]]$
 c. Cat. $[_{VP} \textit{ser} [_{RP} \dots [_{R'} R_T [_{\sqrt{URT}}] [_{PP} \textit{a} [_{IRT}] \dots]]]]$

In (24b), the insertion of the copula *estar* values the uninterpretable terminal coincidence feature in the head of the attributive relation. By contrast, in (24c) the presence of the preposition *a*, which implies the existence of a path in the interpretation of the sentence, values the uninterpretable feature in the functional attributive projection and, as a consequence, the copula that is selected is *ser*. In parametric terms, the contrast between Spanish and Catalan derives from differences in the prepositional system: whereas in Catalan the preposition of contact *a* can denote the goal of the abstract path that is intrinsic to the locative attributives, Spanish only admits the presence of this preposition when the attribute itself includes an axial construction¹⁵:

- (25) a. *Juan {está/es} a París
 Juan is _{estar/ser} at París
 Intended meaning: 'Juan is in París'
 b. Juan está al final de la fila
 Juan is _{estar} at-the end of the line
 'Juan is at the end of the line'

In (25b), the appearance of *a* is due to the fact that the attribute expresses a point in the linear scale denoted by *fila*. In Catalan, the corresponding sentences would both contain *a*: *En Joan és a París*, *En Joan és al final de la fila*. If our approach is on the right track, the fact that Catalan usually makes

¹⁵ It is worth noting that in (23b), where the preposition *a* is the only element associated with the notion of path, it is necessary to conceive it as denoting a physical displacement of the entity, as opposed to (23a), with the preposition *en*.

use of *ser* in locative attributives is due not to a different conceptualization of these constructions in aspectual terms, but rather to differences concerning the licensing of the uninterpretable terminal coincidence feature contained in the attributive relation.

Our approach manages to also integrate several cases presented by Masullo (2008), in which a gerundive construction can function as the attribute of a locative construction:

- (26) a. El Decanato está {subiendo/ bajando} la escalera
 the Dean's-Office is _{estar} {going-up/ going-down} the stairs
 'The Dean's Office is {up/ down} the stairs'
- b. El teatro está llegando al río
 the theater is arriving at-the river
 'The theater is just before you get to the river'
- c. *La farmacia está corriendo a la esquina
 the pharmacy is running to the corner
 Intended meaning: 'The pharmacy is at the point reached by running to the corner'

The contrast in (26) shows that these kind of attributes are only licensed if they include a verb of inherently directed motion (Levin & Rappaport-Hovav 1995). Manner of motion verbs, like *correr* in (26c), cannot satisfy the requirements imposed by the construction, presumably because they lack the directional component that is crucial to form an axial construction. The lack of directionality in (26c) avoids the possibility of interpreting the attribute as locative.¹⁶ On the the other hand, the directional component encapsulated in the lexical content of the verb in (26a, b) allows an interpretation of the attribute as referring to the limit of a path, which licenses its use as a locative

¹⁶ The only possible interpretation would be the one that corresponds to a progressive periphrasis, where *estar* focusses an internal phase of the event denoted by the movement predicate. But this interpretation is not possible in (26c), because a movable subject would then be needed, as in *Luis está corriendo a la esquina* ('Luis is running to the corner'). Note that the relation that characterizes the gerundive clause in the last example is of central coincidence, whereby the function of *estar* in this case is not checking a terminal coincidence feature in the attribute, but superimposing its own aspectual mark over the gerundive clause in order to focus an internal phase of the event (progressive interpretation).

attribute.

The data in (26) are interesting because gerundive clauses have usually been characterized as central coincidence constructions, as opposed to participial clauses, which are intrinsically perfective. Relying on the analysis of Jackendoff (1990), Masullo (2008) assigns the following lexical relational structure to (26a, b), where VIDM stands for a verb of inherently directed motion and XP is the functional projection that hosts the gerundive affix:

$$(27) \left[_{PP} \left[_{P'} AT_i \left[_{XP} \left[_{X'} -ndo \left[_{VP} (PRO_{arb}) VIDM \left[_{PP} SOURCE-PATH-GOAL_j \right] \right] \right] \right] \right] \right]$$

In (27), the function of the covert preposition AT consists in allowing the gerundive clause to be interpreted as a locative attribute. In our analysis, the overt licenser of this interpretation is the copula *estar*, which is the unit that values the terminal coincidence relation feature that is characteristic of locative attributives.

3. *Ser* with locative and participial attributes

3.1. The role of event subjects in the selection of the copula

A common topic in the grammatical tradition is the idea that the properties of the attribute affect copular selection. But the influence of the subject in the selection of the copula has been the object of less interest. However, the latter factor is also important in locative attributives: when an event nominal is located in time or space, the copula that is selected in all Iberian Romance languages is *ser*. When the subject indistinctly admits an eventive or an individual interpretation, the contrast is easy to see:

- (28) a. La firma del acuerdo será {el próximo jueves/ en el paraninfo}
 the signing of-the agreement will-be_{ser} {the next Thursday/ in the main-hall}
 ‘The signing of the agreement will take place {next Thursday/ in the main hall}
- b. La firma del acuerdo está sobre la mesa
 the signature of the agreement is_{estar} on the table
 ‘The signature of the agreement is on the table’

(Simple event nouns: Resnik 2010: 171)

c. $[_{DP} \text{una} [_{nP} [_{nP} [_{n'} \text{n} [_{\sqrt{P}} [_{\sqrt{P}} \text{CONFERENCIA}]]]]] [_{pp} \text{de 20 páginas}]]]$

(Non-event nouns: Resnik 2010: 171)

Locating an event in space or time implies the same terminal coincidence relation between a figure, which in this case is the event, and a ground, which corresponds to the temporal or spatial coordinates. But the differential property of events with respect to individuals is that these coordinates are intrinsic to them. We can formalize this intuition by supposing that event nominals include an event variable in their lexical content that values the uninterpretable feature R_T of the attributive relation by means of a specifier-head relation. Likely, the position that hosts this feature is the head of the aspectual projection that singles out the structure of this class of nominals in (29):

- (30) a. El auditorio está en el centro de la ciudad
 the auditorium is_{estar} in the center of the town
 ‘The auditorium is in the center of the town’
 $[_{VP} \text{está}_{[iRT]} [_{RP} [_{DP} \text{el} [_{nP} \text{auditorio} [_{\sqrt{P}} \text{auditorio}]]]]] [_R \sqrt{uR}_T [_{pp} \text{en el centro de la ciudad}]]]$
- b. El concierto es en el auditorio
 the concert is_{ser} in the auditorium
 ‘The concert is in the auditorium’
 $[_{VP} \text{es} [_{RP} [_{DP} \text{el} [_{nP} \text{concierto}_{[iRT]} [_{AspP} \text{concierto}_{[iRT]} [_{\sqrt{P}} \text{concierto}]]]]]]] [_R \sqrt{uR}_T [_{pp} \text{en el auditorio}]]]$

The delimiting feature of the event nominal localizes the event in all its extension. With movable events, it is possible to focus an internal phase of the event using *estar*, which introduces a delimited subinterval of the event, as in (31a):

- (31) a. La manifestación {es/ está} en las Ramblas
 the demonstration is_{ser/estar} in the Ramblas
 ‘The demonstration {is in/ goes down} the Ramblas’
- b. Un tramo del recorrido de la manifestación es en las Ramblas
 a leg-of-the route of the demonstration is_{ser} in the Ramblas

- ‘One leg of the demonstration route is in the Ramblas’
 c. Una parte de la manifestación está en las Ramblas
 a part-of-the demonstration is_{estar} in the Ramblas
 ‘One part of the demonstration is on the Ramblas’

The *estar* variant seen in (31a) denotes a leg of the demonstration route. The event feature of the subject values the terminal coincidence feature of the relator, but it is necessary to resort to the aspectual copula *estar* in order to express a subinterval of the entire event. The copula in (31b) is *ser*, since the notion of event subinterval is syntactically expressed in the subject by means of a partitive relation. Note that, as predicted, the same pattern requires *estar* if the subject is individual: *Un tramo de la carretera está en obras* (‘A stretch of the road is under construction’). The same situation holds in (31c), due to the fact that *una parte de la manifestación* (‘a part of the demonstration’) refers to a subset of the demonstrators and consequently the subject does not have eventive import.

As regards the temporal localization of events, the selected copula is also *ser*: the temporal attribute denotes the moment when the event starts or its entire interval of duration, as (32a) shows¹⁸:

- (32) a. La visita es {a las seis/ de seis a nueve/ hasta las nueve}
 the visit is_{ser} {at the six/ from six to nine/ until the nine}
 ‘The visit is {at six/ from six to nine/ until nine}’
 b. El concierto está {en la segunda parte/ en sus inicios}
 the concert is {in the second half/ in its beginnings}
 ‘The concert is {in the second half/ just beginning}’

Since (32b) denotes a subinterval of the entire duration of the event, the copula *estar* is needed in order to introduce a secondary delimitation.

¹⁸ Camacho (2012) proposes an aspectual account of the copular alternation that relies on the idea that *estar* has an uninterpretable inchoative feature that must be valued by the attribute. To explain the use of *ser* with event nominals, he assumes that these kind of nouns include in their functional structure a durative feature that intervenes between the copula and the attribute, blocking the emergence of *estar* by minimality principles. For a critical review of Camacho’s theory, see Fábregas (2012).

3.2. Copular alternation with path nominals

So far, we have seen that the localization of an individual entity triggers the presence of *estar* in Spanish. However, in the sentences in (33) the copula is *ser*, albeit the subject apparently has an individual import:

- (33) a. El aeropuerto es por ahí
the airport is_{ser} by there
'The airport is that way'
b. El decanato es enfrente
the dean's-office is_{ser} in-front
'The Dean's office is across the street'
c. La parada de taxis es en la próxima esquina
the stop of taxis is_{ser} in the next corner
'The taxi rank is at the next corner'
d. Los recursos son en la planta tercera
the appeals are_{ser} on the floor third
'The appeals office is on the third floor'

This pattern is very productive and is attested in all Iberian Romance languages, but its use is constrained by pragmatic conditions. In the first place, it usually implies a prior request for information about the location of the corresponding place by the hearer. Moreover, the subject typically denotes a place where certain activities or services take place. Third, the use of these sentences requires that the utterance situation be deictically anchored to the entity that is spatially located. Finally, the sentence denotes the route that the hearer must follow to reach the goal of the path.

If *ser* is commuted by *estar* in these sentences, the notion of route is weakened and the new construction becomes an ordinary locative attributive.¹⁹

Path copular sentences can also be used in questions, provided that the deictic anchorage is given:

¹⁹ In (33a) the presence of the preposition *por* would preserve the notion of path in the *estar* version. In fact, in *El aeropuerto está por allí* ('The airport is over there') the attribute can be interpreted either as denoting a path or as expressing an approximate location.

- (34) –¿Dónde es su casa? / –En aquella cumbre
 where is her house on that peak
 –‘Where is her house?’ –‘On that peak’
 (J.A. Lira, *Medicina andina. Farmacopea y rituales*) [example taken
 from CREA database, searched 05/20/2012]

The attributes of these sentences can express either a path, as in (33a), or its goal, as in (33b-d). In its turn, the subject must denote an entity with a fixed physical location, so that a sentence such as *El decanato es en el piso de arriba* ('The dean's office is on the next floor') contrasts with **La decana es arriba* ('The dean is upstairs'). This last sentence can be acceptable to some speakers if the meaning of the subject is coerced to denote the dean's office. A similar coercion has been performed in (33d), where the subject is interpreted as denoting an administrative service, whereas in *Los recursos están en la planta tercera* ('The appeals are on the third floor') the subject can also express a set of legal documents. As Salazar (2004: 2504) correctly points out, these subjects denote "a physical location in which events take place that usually are featured by prototypically human entities".

The localist interpretation that corresponds to the subject in these constructions seems to be related to the deictic component that characterizes them. Alexiadou, Haegeman and Stavrou (2007: 128) propose to split DPs into an ordered array of functional projections, in line with similar proposals made by Rizzi (1997) with respect to CP. In particular, they propose to distinguish two DP layers in the following terms:

The highest DP layer, DP1, is the locus of that part of the interpretation of the nominal projection that encodes discourse/pragmatic aspects of its interpretation; for example, it may encode concepts such as familiarity, referentiality and deixis. The lower DP, DP2, expresses determination, i.e. definiteness, indefiniteness and so on.

We will suppose that the highest DP is the projection that hosts the features permitting the localist interpretation of the subject. Therefore, both readings of a DP like *los recursos* ('the appeals') would correspond to the structures in (35):

- (35) a. $[_{DP2} [_{D2'} \text{ los } [_{NP} \text{ recursos}]]]$ individual interpretation
 b. $[_{DP1} [_{D1'} \text{ LOC } [_{DP2} [_{D2'} \text{ los } [_{NP} \text{ recursos}]]]]]$ localist interpretation

Whereas (35a) gives rise to the interpretation of *los recursos* as a set of legal expedients, example (35b) reflects the localist interpretation of the same sequence ('the office where the appeals are presented'). In (35b) the localist component of the DP is phonetically covert, but it is crucial in the copular selection. In keeping with the analysis presented so far, we will assume that the deictic variable that these DPs incorporate includes an interpretable terminal coincidence feature that values its uninterpretable counterpart in the head of the attributive relation. As a consequence, the copula that is selected is *ser*:

- (36) $[_{VP} \text{ son } [_{RP} [_{DP1} [_{D1'} \text{ LOC } [_{IRTI} [_{DP2} [_{D2'} \text{ los } [_{NP} \text{ recursos}]]]]]]] [_{R'} \sqrt{R}_T [_{pp} \text{ en la planta tercera}]]]$

The contrasts in (37) are particularly telling:

- (37) a. La autopista {es/ está} a 20 kilómetros
 the highway is _{*ser/estar*} at 20 kilometers
 'The highway is at 20 kilometers from here'
 b. A la autopista {son/ *están} 20 kilómetros
 to the highway are _{*ser/*estar*} 20 kilometers
 'It is 20 kilometers to the highway'
 c. La autopista {es/ está} por ahí
 the highway is _{*ser*} by there
 'The highway is that way'
 d. A la autopista {es/ *está} por ahí
 to the highway is by there
 'The way to the highway is over there'

In (37a), the subject can alternatively receive the interpretation of path or that of individual. The corresponding copulas are *ser* and *estar*, respectively. The meaning of path in the attribute is related to the presence of the preposition *a*. In (37b), the copula agrees with the measure phrase, due to the fact that the

preposition expressing the notion of path heads the referential element in the attributive relation. In this case, the notion of path in the referential component of the attributive relation is overtly realized. The unavailability of the *estar* version derives from the fact that the measure phrase is not referential and it is consequently not possible to use it as the subject of a standard attributive relation. (37c, d) reproduce the same pattern, but it is worth noting that in (37d) the verb takes its default form in singular, since both elements of the attributive relation are PPs and hence the agreement is not possible. Although the MeasP agrees with the copula, it cannot occupy the preverbal position: *20 kilómetros son a la autopista. This is probably due to the fact that the PP is the only element that has referential import in this sentence.

To sum up: the notion of path is crucial for licensing the presence of the copula *ser* in the constructions just considered. The interpretable terminal coincidence feature assigned to the subject of the attributive relation values the uninterpretable feature of the same sort that characterizes all locative attributives. The existence of a path component in the attributive relation is manifested in the attribute *or*, in extreme cases, in the subject itself. The structure of these sentences is represented in (38a, b), whereas (38c) corresponds to the common locative pattern with *estar*:

- (38) a. [_{VP} es [_{RP} [_{DP1} LOC_[RT] [_{DP2} la autopista]] [_{R'} R_T [_{√uRT}] [_{PP} a 20 km]]]]
 b. [_{VP} son [_{RP} [_{PP} a_[RT] la autopista] [_{R'} R_T [_{√uRT}] [_{MeasP} 20 km]]]]
 c. [_{VP} está_[RT] [_{RP} [_{DP2} la autopista] [_{R'} R_T [_{√uRT}] [_{PP} por ahí/ a 20 km]]]]]

3.3. Another source of interlinguistic variation: perfective adjectives

In § 2.3 we have studied the different behavior of Spanish and Catalan with respect to copular selection in locative attributives. In this paragraph, we will take a quick look at another source of variation between the two languages: perfective adjectives and participles. Whereas Spanish always uses *estar* in these cases, Catalan selects *ser*.²⁰ The contrasts in (39) exemplify

²⁰ García Méndez (2008) provides a list of 39 participial adjectives that form their corresponding attributives with *ser* in Portuguese and with *estar* in Spanish. Among them are *afectado* 'affected', *coberto* 'covered', *dedicado* 'dedicated', *dividido* 'divided', *formado* 'formed', *influenciado* 'influenced', *infectado* 'infected', *orientado* 'oriented', *obrigado* 'obliged', *povoado* 'populated' and *recomendado* 'recommended'. It should be noted that in all cases the Catalan version admits *ser*, although there are also attested variants with *estar*, possibly due to the influence of Spanish. Portuguese *morto* 'dead' and *vivo* 'alive' combine with *estar*, as in Spanish, whereas *louco* 'insane' can take *ser*, as in Catalan.

the differences between Spanish and Catalan:

- (39) a. Sp. *María está muerta*/ Cat. *La Maria és morta*
 *María is*_{estar/ser} *dead*
 ‘*María is dead*’
 b. Sp. *El cielo está nublado*/ Cat. *El cel és núvol*
 *the sky is*_{estar/ser} *cloudy*
 ‘*The sky is cloudy*’

It is interesting to note that the data in (39) are in some sense reminiscent of the situation that we studied in § 2.3 concerning the use of *ser* in Catalan locative attributives. In both cases, Catalan opts for *ser* –the aspectually neuter copula– in constructions that are unequivocally perfective. We suggest that the underlying reason explaining these cases is the same that allows the emergence of *ser* in other perfective sentences: the valuation of the feature [uR_⊥] inside the attributive small clause. If this route is taken, it seems natural to focus on the aspectually marked nature of the attribute. In fact, the adjectives that show interlinguistic variation pertain to two subclasses: participial adjectives, which incorporate the suffix that is characteristic of this non-finite verbal form, and perfective adjectives, which express a bounded situation. So, in the examples of (39), *muerta*, *morta* and *nublado* are participial adjectives, but *núvol* is a perfective adjective, since it does not include any participial inflection.²¹ Both classes have two remarkable properties: (a) they have unaccusative import –i. e., their subjects are internal arguments– and (b) they are aspectually perfective. Taking this into account, we can conjecture that these elements have a more complex structure than other adjectives. In particular, it is necessary to reflect that the attributive relation is established in these cases with the internal argument of the predicate. The contrast seen in (40) is telling in this regard:

- (40) a. Sp. *María es muy limpia*/ Cat. *La Maria és molt neta*
 *María is*_{ser/ser} *very neat*

²¹ The corresponding participial form in Catalan is *ennuolat*. Bosque (1990) studies the differences and relations between perfective adjectives and participial adjectives in Spanish. This author shows that many truncated participles, perfective adjectives without participial inflection but lexically related to verbs (like *calmo* ‘calm’, *nublo* ‘cloudy’ or *canso* ‘tired’), have been replaced by the corresponding participle forms.

is needed. The second, more radical, possibility consists in supposing that in Spanish perfective adjectives and participles have lost their aspectual functional projections when they are used attributively and have become pure adjectives, so that the structure corresponding to *lleno* and *muerto* would be as in (43):

- (43) a. [_{AP} XP [_{A'} lleno \times P]]
b. [_{AP} XP [_{A'} muerto \times P]]

An important difference concerning (42a) is that the Catalan version can be indistinctly interpreted as denoting a state or an event, whereas Spanish only allows the first reading. The example in (44) is a headline published by the web journal *Vilaweb* (06-26-2009):

- (44) Farrah Fawcett, un dels àngels de Charlie, és morta
'Farrah Fawcett, one of Charlie's Angels, is dead'

The Spanish version of (44) would require replacing *ser* with the auxiliary *haber*: *Farrah Fawcett [...] ha muerto*. Catalan would also accept *ha mort* with the same meaning as (44). The interesting point here is the fact that in Spanish the copula *ser* can only co-occur with participles in passive sentences. If we assume, as seems straightforward, that it is in passive sentences that the functional structure of the participle is most fully manifested, the Spanish data would come directly from the fact that only in passives would the terminal coincidence feature [_{iR_i}] be present in the extended projection of the participle.

We are aware that this is a sketchy and preliminary proposal and that a more extensive empirical study will be necessary to test the hypothesis. In particular, it would be crucial to draw the boundary between adjectives taking *ser* and *estar* in Catalan and Portuguese.

5. Conclusions

The main conclusions of this study are the following:

- (a) *Estar* is a copula that contains a terminal coincidence interpretable feature that prompts an abstract path interpretation.
(b) *Ser* is the default copula that appears whenever there is no need

to value an uninterpretable feature of terminal coincidence in the attributive relator.

- (c) *Ser* is compatible with attributive relations of terminal coincidence provided that this feature has been valued inside the attributive small clause. In locative attributives, such a situation is found when the subject of the attributive relation has either an eventive or a path interpretation.
- (d) Spanish is more stringent than Catalan in allowing the co-occurrence of *ser* with terminal coincidence attributive relations.

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