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Cognitive underpinnings of the meaning of Spanish *estar*

Implications for its diachronic change

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The Spanish copula verb *estar* is currently taking part in two of the most well-known paths of semantic change across different dialectal varieties of Spanish: (a) as a main copula verb, in its encroachment on the domain of *ser*, and (b) as the auxiliary in the Present Progressive marker, as it encroaches in the domain of the Simple Present form (i.e., Sánchez-Alonso 2018; Fuchs 2020). Here we argue for the hypothesis that *estar*'s participation in both paths of change is not coincidental. Focusing on the copular use, we present arguments for the proposal that *estar*'s encroachment is connected to its lexico-conceptual structure, which, under specific communicative pressures, is afforded greater conversational informativity, thus systematically expanding its licensing contexts and, as a result, bolstering its use. Evidence consistent with this analysis emerges from use variation for *estar* across several dialects of Spanish, both in its copular and auxiliary uses.

Keywords: semantic change, copula, progressive, *estar*, Spanish

1. Introduction

We explore here the possible forces at play that trigger the expansion of *estar*, focusing on its copular verb use with adjectival and prepositional phrases. We argue for the hypothesis that *communicative value*, which is grounded in the lexico-conceptual meaning associated with *estar*, is one such force. We define *communicative value* as the ability of a lexico-conceptual meaning to bring the hearer closer to the speaker's perspective as sentence composition unfolds; that is, to allow the hearer to achieve *perspective alignment* (Fuchs 2020; Fuchs et al. 2020) with the speaker, a most basic objective of (linguistic) communication. Accordingly, communicative value is not categorical, but a matter of degree; and in the case of *estar* vs. *ser*, the other copula verb in the Spanish system, *estar* places

higher on that scale. Consequently, use of *estar* will be favored when linguistic material is the main mechanism to induce perspective alignment. This situation, we argue, is grounded in the conceptual structure of *estar*'s lexicalized meaning.

In what follows we: (a) present the conceptual structure that supports *estar*'s lexicalized meaning, (b) discuss the possible communicative implications of this conceptual structure, including *perspective alignment* as a communicative value, and (c) show in the process how the proposed meaning can serve to capture the copula's diachronic path.

2. The lexical meaning of *estar*

Most, if not all, semantic-pragmatic-based accounts of the *ser/estar* distinction build on two insights: (1) *estar* predications express a contrast of some sort, not present in *ser* predications; (2) the felicity of *estar* predications shows a context dependence that *ser*'s predications appear not to show. That is, when *estar* is used, a richer and more specific context is necessarily invoked; *ser* by contrast appears neutral in this respect (e.g., Clements 1988; Escandell Vidal 2023; Escandell Vidal and Leonetti 2002; Maienborn 2005; Roldán 1974; Sánchez-Alonso 2018; Sánchez-Alonso et al. 2016). Among these accounts, the boundedness presupposition analysis as presented in Sánchez-Alonso et al. (2016) and Sánchez-Alonso (2018), which itself builds on prior analyses, specifically Clements (1988, 2006) and Maienborn (2005), proposes that both *ser* and *estar* have the same truth-conditional meaning: both indicate that a given predication is true at a circumstance of evaluation. Additionally, however, *estar* contains the presupposition that for the prejacent –i.e., the proposition that the semantic operator combines with– to be true, it must hold contingently. The contingency indicates that, for the prejacent to be true, there must be an alternative circumstance of evaluation at which it is false. Specifically, there has to be a counterpart, at an alternative circumstance of evaluation along a specific parameter –e.g., time, place, world, contextual standard, agent– where the prejacent is false. Failure to satisfy the presupposition renders the *estar* sentence infelicitous. The requirement of the construal of a false alternative thus makes the prejacent *boundedly* true.

Implementing this analysis as a real-time comprehension process, the account described above tells us that copular use of *estar* imposes the demand on both speaker/producer and addressee/comprehender that the same prejacent be construed under two alternative circumstances of evaluation –a process that would be expected to carry additional computational cost. Interestingly, this implication leads to a hypothesis: if an *estar* sentence is presented in a specifically designed context, one that can support the construal of the contrasting, false alternative,

the *estar* sentence will be interpreted with greater ease, and therefore found to be more acceptable, than if it is presented in a context that is neutral with respect to this contrasting possibility. Examples (1) and (2) illustrate this contrast:

- (1) Alternative Supporting Context: Pedro went on a diet for six months. I saw him yesterday:
Él ?#es/está delgado.
 He ser/estar.PRES.3SG skinny
 He is skinny [now]. [Sánchez-Alonso 2018]
- (2) Neutral Context: Pedro is Ana's new friend. I met him yesterday:
Él es/?#está delgado.
 He ser/estar.PRES.3SG skinny
 He is skinny [now]. [Sánchez-Alonso 2018]

In these examples, (1) presents an alternative supporting situation. Pedro was not thin six months ago, but after going on a diet, he has become skinny. This construal is additionally supported by the use of the verb “to see” in the second sentence of the context, a verb that allows for repeated events. Altogether the context explicitly provides support for the construal of an alternative circumstance of evaluation –in this case, based on a time parameter (i.e., six months ago)– where the prejacent (*he be skinny*) is false, thus rendering the use of *estar* felicitous. By contrast, (2) represents a neutral context, one that does not give rise to an alternative circumstance of evaluation, a restriction clearly supported by the use of the verb ‘to meet’, which in and of itself limits the construal of iterative events. Accordingly, the use of *estar* in this case is reported as dispreferred –possible, yet statistically less likely– with respect to the use of *ser*.

As mentioned, when looking at *estar* from the perspective of an addressee/comprehender, the presuppositional component of the meaning of *estar* also has a processing implication. It requires the addressee (a) to identify an intended index of evaluation and, on this basis, (b) construe the corresponding false alternative. Even though there appear to be no constraints as to the source of content that these contrastive alternatives can be construed from (e.g., the immediate context, common ground knowledge, the hearer's imagination, etc.), they need to be construed in real-time as comprehension progresses, a process that is cognitively demanding. As it turns out, evidence supporting the psychological reality of the real-time construal of the false alternative during *estar* use has already been reported (Sánchez-Alonso 2018; Sánchez-Alonso et al. 2016).

This evidence is the result of multiple investigations on *estar* use. Sánchez-Alonso (2018) specifically examines the contrast between the two copulas by systematically testing the offline and online comprehension of *ser* and *estar* sentences with adjectival, nominal, and locative predicates in five dialects of Spanish:

Rioplatense, Chilean, Peninsular, Mexican Altiplano and Venezuelan. The experimental design relies on the boundedness-presupposition analysis and its corresponding prediction that degree of support for the construal of the false alternative will correlate with differences in the acceptability of the resulting collocations. This pertains not only to collocations uniformly accepted across Spanish dialects, but also those assumed to be marginal in some of these dialects.¹

Results from a series of studies involving acceptability questionnaires, measuring comprehension, and forced-choice tasks, measuring production, bear this prediction out. These studies –gathering data from 233 participants– quantitatively establish for the first time (a) that in all dialects, the presence of a false-alternative-supporting context leads to a significant increase in the acceptability and use of *estar*, and (b) that indeed, there is significant variation across dialects in the degree to which comprehenders accept *estar* uses with neutral contexts, and in the degree to which the presence of an explicit supportive context increases *estar*'s acceptability.

The implications of the analysis are further borne out in the sentence comprehension patterns that result from time constrained tasks such as a self-paced reading study regarding a subset of dialects: Peninsular, Rioplatense, and Mexican Altiplano (177 participants). Results from this task show two patterns: (1) some dialects (Peninsular and Rioplatense) exhibit longer reading times one word after the presentation of *estar* for the condition that does not have explicit false alternative construal support, while (2) the Mexican Altiplano dialect shows no impact of context. This is revealing since, crucially, this latter pattern correlates with high acceptability for *estar* use in contexts where false-alternative construal is not presented, suggesting in turn that those comprehenders may have greater practice in construing such false alternatives on their own, without the support of an explicit context.

The above excursion through the psycholinguistic results –both in acceptability and processing– has one main objective: to argue for a specific lexically-driven analysis of *estar*. This analysis tells us that the lexical structure of *estar* itself contains within it the specific set of rules that make *estar*'s composition felicitous. Synchronically, this set of rules demands of the addressee/comprehender the construal of a conceptual structure that is costly to the user and is sub-

1. Indeed the reason that Sánchez-Alonso et al. (2016) test these dialects is the well-known observation that *estar* use varies significantly across Spanish dialects. Interestingly, it varies in the number of indices of evaluation that are more or less acceptable along which the false alternative can be created. For example, whereas in the Chilean (Santiago region) dialect the expression *La catedral está linda* 'The cathedral *está* beautiful' is fully acceptable, in the Argentinian (Rioplatense) dialect it is less so (see Sánchez-Alonso 2018 for further discussion). On this topic, also see Gumiel-Molina, Moreno-Quibén and Pérez-Jiménez (2023).

ject to cross-dialectal variation in a predictable manner –a conclusion consistent with a meaning representation that demands more of the comprehender than its *ser* counterpart.² Diachronically, it raises the question of how a lexical item such as *estar*, which is more semantically involved –and computationally costlier to implement –, would be preferred over the less costly counterpart, such that it be allowed to encroach on the domain of a lexical item such as *ser*.

We propose that the roots of the success of *estar* are to be found in the cognitive and communicative implications of its underlying conceptual structure, the level where dynamics such as variation and change are at play.³ Specifically, if we were to show that despite its computational cost, construal of the conceptual structure associated with *estar* brings with it demands above and beyond those of *ser* –and furthermore, that those demands make the copula *estar* particularly useful for linguistic communication–, we would be closer to explaining the larger dynamics associated with it, in particular those associated with its cross-dialectal variation and diachronic change. Our first step on this path is a discussion of the conceptual structure of *estar* to which we turn directly below.

3. The conceptual underpinnings of *estar*

As the historical record indicates, the conceptual representation of the meaning of *estar* is to be found in the locative conceptual structure associated with Latin *stare* ‘to stand firmly/still’. We model this in lexico-conceptual terms in the structure⁴ presented in Figure 1:

2. Although discussion of *ser* is beyond the scope of this paper, it is important to note that the same studies that we cite also report that comprehension of *ser* is sensitive to explicit false-alternative supporting contexts too, and that it is so in the opposite manner: acceptability of *ser* with explicit false-alternative supporting contexts results in significantly *lower* acceptability ratings than with the neutral contextual counterpart. This pattern fits nicely with the boundedness analysis as it evidences sensitivity of comprehenders to what would be an over-informative context –a context that traditionally is taken to be dispreferred by speakers.

3. The proposal that linguistic dynamics like variation and change are manipulated at the conceptual level results from an architecture of language whereby “lexicalized meaning” is that conceptual structure that is visible to language (e.g., Jackendoff 1983, 1990, 1997; more recently, see Piñango 2019 for further development of this idea). Accordingly, when we talk about linguistic semantic change, we are referring to the changes in the association between a morpho-phonological and syntactic expression and a conceptual structure. It is this connection to conceptual structure that allows communicative constraints such as *informativity* to play a role in those dynamics.

4. All conceptual structure representations are presented using the formalisms of Conceptual Semantics (e.g., Jackendoff 1983, 1990, 1991, 1997; Pinker 1989 and references therein).

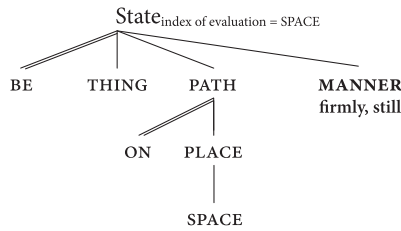


Figure 1. Lexico-conceptual structure of Latin *stare*

This representation expresses that the conceptual construal of *stare* is as a STATE situation headed by the existential function BE –signaled with double lines–, which maps an entity THING onto another entity PLACE, encoding the spatial location, through a PATH. This conceptual representation thus captures *any* locative relation. Also inherent to the representation is the observation that the relation between THING and PLACE is coincidental, not causal (i.e., there is no CAUS function in the representation). And here is where the conceptual representation of *stare* determines the evolution of *estar*. As presented, *stare*'s conceptual structure contains two key properties which are independent of each other: (1) the coincidentalness of the THING-PLACE mapping, and (2) the specification (i.e., saturation) of the MANNER feature. Coincidentalness is the property that the relation between two entities is intrinsically random/non-causal, and therefore, when it occurs, it is the result of some contingency: e.g., *the cat stands on the mat* (because there happens to be a mat around).⁵ By contrast, MANNER encodes the property of the relation that distinguishes *stare* from other locative relations, such as *lie, rest, lean-on*, etc. In this case the MANNER is specified as 'firmly/still'. So, *stare*, when recruited as a locative verb, comes with this conceptual property already saturated. We propose that this saturation of MANNER is crucial for the lexicalization of *estar* because MANNER is a conceptual category that is not necessarily lexicalized, so that when it is lexicalized, it becomes salient –e.g., it becomes a distinguishing property in comparison to other locative predicates of the same kind.

We therefore propose: (1) that expressing that this specific locative relation is true *at a given reference time* gives rise to the inference that such a situation may not obtain with the same manner *at all reference times*, and (2) that the contingency inference resulting from the coincidentalness inherent to location became separated from its manner property, and in doing so stopped being exclusively relevant to *spatial relations*. Moreover, any locative relation is included in the *world*

5. We further clarify here that what is contingent in a locative predicate is not the location relation itself, but the conceptual relation between the entity being located and the place that serves as location.

index. So, allowing this index in the conceptual structure introduced the possibility that other possible indices along which contingencies could be created could enter the structure. Whereas (1) introduces *contrast* between the current circumstance of evaluation and a non-current one, (2) introduces *contingency* for all possible indices of evaluation. These two contributions acting together give rise to a generalized conceptual representation, which –we propose– underlies *estar*. We present that representation in Figure 2:

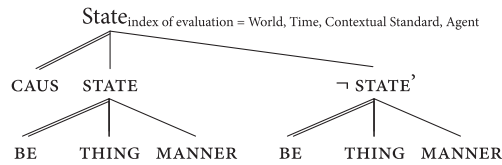


Figure 2. Lexico-conceptual structure of the meaning of *estar*

This representation expresses a STATE situation headed by a CAUS relation, with two arguments: STATE, associated with the linguistic prejacent, and STATE', representing the construal of the prejacent under the false alternative. The two arguments are identical in all respects except two: (1) STATE and STATE' are evaluated under alternative circumstances of evaluation based on one of a class of indices (space/time/world/agent), and (2) whereas STATE is linguistically expressed, STATE' must remain linguistically unexpressed, implicit. The relation between the two arguments is dictated by the function CAUS, according to which for the explicit STATE to be true under a given circumstance of evaluation, the implicit STATE' must not be. The falsehood of STATE' is thus akin to a conceptual entailment of the truth of STATE.⁶

As it can be seen, the conceptual representation that we propose is fairly open with respect to the prejacent that it can hold. The only constraint that it places is that the prejacent be stative, and that its meaning be such that it allows for the false alternative, STATE', to be conceptually viable –that is, to be in line with the conceptual assumptions/expectations of the comprehender. This conceptual constraint can be observed in cases like: *El cianuro es/#está peligroso* 'The cyanide ser/#estar dangerous'. Here, the use of *estar* necessitates the construal of the concept *cianuro* without the property that it be dangerous. This is conceptually problematic because *cyanide* is dangerous (at least to humans) by definition.

6. The CAUS function is prototypically used for agentive predicates, such as *kill*, or psychological predicates like *fear* or *frighten*. The difference between those representations and the current instantiation is twofold: (1) even though the same causal relation is intended, *estar*'s conceptual structure is not the expected bi-eventive structure but a bi-stative one, and (2) the explicit linguistic association is restricted to the first STATE, so that STATE' remains linguistically unexpressed.

By the same token, *estar* use provides the speaker with the possibility of “testing” conceptual assumptions or expectations. Individual level predications like *Carla está rubia (hoy)* ‘Carla está blonde (today)’ or *Luisa está alta (hoy)* ‘Luisa está tall (today)’ illustrate this possibility. Whereas the properties of being blonde or being tall are standardly construed as unchangeable for any given individual (hence their categorization as individual level predicates), the use of *estar* can be used to disrupt that standard expectation/assumption and, in this way, induce the conceptual modification whereby such properties are either not inherent to the individual or, more frequently, that the property is inherent to an individual, but can be “faked” –e.g., by the use of hair coloring or by the use of heels.⁷

What makes then the conceptual representation of *stare* a good candidate for the separation of coincidental/contingency from the index related to space innovated in *estar*? We reason as follows. Space is always associated with the *world* index. This index of evaluation, presumably stored in the mental lexicon, does not exist in isolation. It belongs to a class of such indices, including time, agent, and contextual standard. Class participation creates a type of “class pressure”, as it were, on the conceptual structure in which one of its members participates. That is, when one index is contained in a conceptual representation, the fact that the index is not stored by itself but with a class of indices creates a pressure to create the conditions for the other indices to also participate in that conceptual structure. We propose that this is what could have happened in the case of *stare*. *Estar* adopted its meaning with the index *world*, and this opened the gate for the other indices to participate in the structure, giving rise to the readings we currently observe.

Synchronic examples of what could be called “multi-index” participation abound. One example is found in *predicates of transfer*, such as the English verb *to go* in *Ana went from New Haven to New York*. The conceptual structure of this sentence is an event headed by the function GO and whose index of evaluation *world* (locative) is conveyed in the PATH of transfer. A wider look at the uses of *to go* as a verb of transfer, however, shows that the evaluation is not restricted to space. Other PATH indices can also participate, giving rise to expressions like *Ana went from sad to elated (when Lola gave her the news)* or *Ana went from average to tall (in a matter of months)* (e.g., Gruber 1965; Jackendoff 1990, 1997, 2012). As it can be seen,

7. A reviewer notes, and we agree, that this line of reasoning does not contradict a possible role that syntactic restrictions –such as the fact that *estar* does not subcategorize for DPs/NPs– may play in the distribution of *estar*, such as in **Ana está (una) profesora* ‘Ana está (a) professor’. The reviewer also notes, however, that in some varieties of Spanish, this restriction has been weakened, allowing NP complementation with an evaluative reading: *Ana está buena persona* ‘Ana está a good person’. Such weakening could be reflecting pressure by the *estar*’s LCS to expand the subcategorization of *estar*, starting with restricted readings, leading to further encroaching on *ser*.

this way of thinking about conceptual decomposition leverages one widely attested mechanism of meaning change: diachronic expansion through semantic classes.

4. The readings of *estar* sentences through the lens of *estar*'s conceptual structure

Having sketched *estar*'s conceptual structure, we present the different readings under the four indices of evaluation: World, Time, Contextual Standard and Agent, and discuss how each of them allows for the satisfaction of the presuppositional requirement of *estar* (with AP and PP complements). The readings are presented in Table 1.

Recall that across dialects the contrast supporting context has been reported to increase the acceptability of *estar* and decrease the acceptability of *ser*, even when *ser* is a viable option (Sánchez-Alonso et al. 2016). As discussed, we take this to evidence (a) the context dependence of *estar* and, (b) the mutually constraining relation between the two copula uses (if one use improves, the other one cannot improve as well), evidencing their participation in the same conceptual space. The first observation is that, in line with our analysis, and regardless of index, all readings give rise to a contrast that emerges from the false alternative construal: “the sea is not always blue and calm here”, “the cousin’s real profession is not a plumber”, “this is not the only way in which a skirt can/should fit”, “there is not only one way to assess the movie; *according to me* the plot is boring, but others may think differently”. Crucially, the relation between the stated expression and the implicit one is *causal*: “for the sea to be rough/calm in this world to be true, it must be the case that there are other worlds in which that is not the case”, “for the cousin to be having this job to be true, there must be other times when this is not his job”, “for the skirt fitting in a specific way to be true, there must be other ways in which skirts can fit”, and finally, “for my having this perception to be true, there must be other perceptions possible”. The second observation that we make is that from these readings can emerge additional inferences, which we label *unexpectedness*, *relational*, *personal experience/conventional knowledge* and *personal opinion*. These inferences are not part of the conceptual structure, yet are very much predictable and stable across speakers. Importantly, and as we will be discussing in Section 6, we believe that part of that predictability is that they reflect a perspectival cline from more perspective neutral (*world*) to more perspective specific (*agent*), which is ultimately what gives special communicative value to *estar*, and which may be at the root of its expansion. Before we discuss its expansion, however, we present a summary of the diachrony of *estar* and how it relates to the conceptual structure proposed.

Table 1. Contrasting Readings by Index (adapted from Sánchez-Alonso et al. 2016).[†]

Index	Alternative Supporting Context	<i>Estar</i> Sentence	Possible Inference
World (non-locative)	<i>Fuimos a la playa Mondragó y nos sorprendimos.</i> 'We went to Mondragó Beach and we were surprised.'	El agua <i>está</i> azul y tiene un mar tranquilo. 'The water is (being) blue and has a calm sea'	Unexpectedness: We thought the sea would be rough and muddy.
Time	<i>Mi primo de momento tiene un trabajo de seis meses.</i> 'My cousin, for now, has a six-month job'	Le pagan bien porque <i>está</i> de fontanero en el Palacio de Congresos 'He is well paid because he's (being) a plumber at the Congress Palace'	Degree of relation: The job is a temporary gig, and not necessarily what he has trained for.
Contextual Standard	Sandra tiene que cambiar la falda que compró el sábado en el mercado 'Sandra needs to change the skirt that she bought on Saturday at the market'	La falda <i>está</i> corta y ajustada de las caderas. 'The skirt is (being) short and tight on the hips'	Personal experience or conventional knowledge: The fitting of the skirt does not match how women skirts should fit.
Agent	Acabo de empezar a ver la última película de Almodóvar y me aburro. 'I just started to watch Almodóvar's last movie and I am getting bored'	La trama <i>está</i> aburrida y los actores hacen mal papel. 'The plot is (being) boring and the actors do a terrible job'	Personal Opinion: According to the speaker

[†] NB: the English text is intended to reflect the sense conveyed by the sentence more than a strict translation.

5. The diachrony of copular *estar* and its conceptual basis

Our question is whether the process of change –to the extent that it can be observed– can be captured as a process of lexicalization of the conceptual properties of the locative meaning. In Latin, *stare* was used to express physical position and it is usually translated as 'stand, stand still, remain standing, stand up stiffly' (Batllori and Roca 2012, 79), as it can be observed in the sentences in (3):

- (3) a. **Sto ad ianuam.**
 ‘I stand in front of the door.’
 b. **Petra autem quadrangulis, quae *stabat* in mediopraeturio...**
 ‘The square pillar that stood in the middle of the praeturio.’
 (Batllori and Roca 2012, 79)

Sánchez-Alonso (2018), following Deo’s (2014, 2015) framework, provides evidence for three stages in this process: (1) recruitment, in the innovation of *estar* in Old Spanish, (2) categorization, as *estar* becomes the default copula with the progressive marker and with stage-level predicates, and (3) generalization, when *estar* is used in most of the contexts previously available only for *ser* (Sánchez-Alonso 2018, 221). She provides further evidence that this process of encroachment or expansion appears guided by the requirements of the contingency presupposition. She points out that the uses of *estar* that call for contexts that facilitate the construal of false alternatives are the first uses to appear. Those are detected in polar questions, temporally-delimited changes of state, and adjectival predications that are dependent on *estar*’s locative component. These satisfy the presuppositional requirement of *estar* by virtue of their semantics: polar questions presuppose both an affirmative answer and its negation, changes of state presuppose an alternative time at which the sentence does not hold, and locative adjectival predicates (e.g., *está caluroso (aquí)* ‘is warm (here)’) presuppose the existence of a different place at which the proposition is false.

Below we provide examples, all extracted from Sánchez-Alonso (2018), that illustrate *estar*’s diachronic path.⁸ Our goal is not to argue for the validity of the path as Sánchez-Alonso interprets it, but to show how the development of this path is connected to the conceptual structure that we have proposed for *estar* and its connections to the one of *stare*, which, according to us, underlies the presuppositional component of its meaning.

Early on, as can be seen in (4–6), we begin to observe *event in progress* readings, leveraging coincidentalness (true at reference time, but not necessarily at other times). Some are presented with stage-level predication, describing manner: *firm, at leisure, satisfied*:

- (4) **Firme estido** Pero Bermuez.
 ‘Pero Bermuez remained firm (on the horse).’
 [v.3629] [Batllori and Roca 2012, 81–82]

8. For all these examples in which *estar* is used, there are previously attested examples with *ser*, which we do not include here for reasons of space. See Sánchez-Alonso, 2018, Section 7.3 for the comparison set of cases.

(5) Myo Çid don Rodrigo en Valencia **esta folgando**.
 ‘Mio Cid don Rodrigo is at leisure in Valencia.’ [v.2090]

(6) Pagado es Myo Çid, que lo **estar aguardando**.
 ‘Mio Cid, who is waiting, is satisfied.’ [v.1058] [Batllori and Roca 2012, 81–82]

We also see *location* –e.g., *space* index readings–, conceptually connected to PLACE, as in (7–8):

(7) **Aqui esta con Myo Çid** el obispo don Iheronimo.
 ‘Here Mio Cid is with the bishop Mister Iheronimo.’ [v.2512]

(8) Al Criador, que **en el çielo esta**.
 ‘To the Lord, who is in heaven.’ [v.2892] [Batllori and Roca 2012, 82]

From the 13th century on, *space* index readings continue to grow, more visibly in contexts in which only *ser* was previously allowed, as in (9–10):

(9) embiame a ella et **esta tu en tu lugar** fasta que yo tome a ti.
 ‘Send me to her and stay where you are until I come back to you.’
 [Calila e Dimna, 35] [Batllori and Roca 2012, 85]

(10) el caño que **esta çerca del pozo**.
 ‘The spout that was near the well.’
 [Calila e Dimna, 111] [Batllori and Roca 2012, 85]

At this time *existential* uses of *estar*, also along the *space* index, are also reported, as in (11):

(11) Et **estava en la casa** un niño.
 ‘And there was a boy in the house.’ [Calila e Dimna, 177]

During this period, as *space* index readings continue to expand, the leveraging of coincidental or contingency also increases, providing a context that supports false alternative construal, as in (12–13):

(12) **En la techumbre** alta de la iglesia **esta** un agujero.
 ‘On the high roof of the church, there is a hole.’ [Andangas e viajes, 25]

(13) **Estaban alli tantos de probres**, que ellos solos finchinan una gran gibdat.
 ‘And there were so many poor people, that they by themselves could fill a big city.’
 [Andangas e viajes, 233]

The 13th century also sees the consolidation of *estar* as the auxiliary of the (Present) Progressive form, signaling *event in progress* readings, where there is a specific manifestation of coincidental or contingency between reference time and speech time,

such that the event that holds at reference time (equal to speech time) necessarily does not hold at other times (Fuchs and Piñango 2021). This can be seen in (14):

- (14) Et **están** ambos **comiendo** et solazándose.
 ‘And they were both eating and relaxing’
 [Calila e Dimna, 254] [Batllori and Roca 2012, 85]

Finally, we begin to see uses focusing on non-space index readings, manipulating MANNER normally in the form of stage-level predication, as in *triste* ‘sad’, *enlazado* ‘trapped’, *bien* ‘well’, *doliente* ‘ill’. This is illustrated in (15–18):

- (15) Amigo, que ha que **estas triste**?
 ‘My friend, why is it that you are sad?’
 [Calila e Dimna, 245] [Vano-Cerda 1982, 248]
- (16) El mur salio de su cueva... vido al gato **estar en los lazos**, et fue muy alegre.
 ‘The mouse went out of its cave... saw that the cat was trapped in the snares,
 and it was very happy.’ [Calila e Dimna, 260]
- (17) Quando la cabeça **esta bien**, el cuerpo **esta bien**.
 ‘When the head is well, the body is well.’ [Calila e Dimna, 261]
- (18) ca mi mujer **esta doliente**.
 ‘because my wife is ill.’ [Calila e Dimna, 251] [Batllori and Roca 2012, 84]

This use is reported to continue into the 15th to 17th centuries, with an ever-increasing number of stage-level predicates –such as *quedo* ‘still’, *desdichada* ‘unhappy’, *sospechosa* ‘suspicious’, *bañado en sangre* ‘covered in blood’, *guardado* ‘saved’–, but also with individual level predicates –such as *linda* ‘pretty’– as can be seen in Examples (19–24):

- (19) Non seria derecho que los otros lidiassen por mi e yo **estoviesse quedo**.
 ‘It would not be right that others fight for me while I stayed still.’
 [Bonium, 484]
- (20) Hoy **está** la **mas desdichada** criatura del mundo.
 ‘Today s/he is the unhappiest creature in the world.’ [El Quijote, 733]
- (21) Francia **está sospechosa** con la descendencia real....
 ‘France is suspicious because of the royal offspring...’ [Vano-Cerda 1982, 243]
- (22) vela otrosi que su cuerpo **estaba todo bañado en sangre**.
 ‘(s/he) saw that her/his body was covered in blood.’ [Calila e Dimna, 280]
- (23) Mas razon es que **esté** lo suyo **guardado** que non lo mio.
 ‘All the more reason that her/his thing is saved but not mine.’
 [Calila e Dimna, 95]

- (24) ¡Que linda estás! ¿Que te pones?
 ‘How pretty you are! How do you do it?’ [Los pechos privilegiados, 204]

An examination of the progression of *estar* through the “lens” of its underlying conceptual structure reveals that since the time of its recruitment not only ‘place’ but also ‘manner’ has been leveraged –e.g., they have been used as variables, sometimes simultaneously. The expansion has been created instead by the steady growth in the ‘manners’ that the *estar* preadjacent could contain. What we see is the predominant use of stage-level predicates that introduce the agent index (e.g., *sospechosa* ‘suspicious’, *desdichada* ‘unhappy’), the contextual standard index (e.g., *bañado en sangre* ‘covered in blood’) and the world index (e.g., *guardado* ‘saved’). To the extent that an individual level predicate such as *linda* ‘pretty’ is observed, it is presented in a context that clearly induces the construal of a false alternative. So, regardless of type, the introduction of new predications appears to be guided by how felicitous are the constraints that involve the likelihood of contrasting construals –a feature that has its origins in *stare*’s saturated MANNER and the possible inference of a contrast that it enabled as it was recruited into *estar*’s conceptual representation.

6. One communicative mechanism of *estar*’s expansion: Perspective alignment

Here we argue that one implication of the conceptual representation of *estar* is to create a focus on the “here and now,” a focus that in turn makes *estar* a useful tool for the speaker to induce perspective alignment, a key goal in any communicative exchange. This is the way in which the conceptual structure of *estar* supports increased use over *ser*, and in this way helps create the conditions for diachronic encroachment.

We have argued above that as the original locative meaning was recruited for copular use, it allowed for the “dislodging” of the coincidental/non-causal implication of location from the spatial property that it originally conveyed. The splitting of the two meaning components had in turn two conceptual implications: (1) it allowed *contingency* to be established as an independent conceptual object associated with copular use, and (2) it made possible that indices of evaluation other than space be lexicalized with *estar*.

The idea that a unitary conceptual structure reconfigures itself through linguistic use is not unique to copular *estar*, since it is also observed in its auxiliary use. This is evidenced in the development of a (Present) Progressive marker in Spanish between the 12th and 16th centuries. This marker is constituted by the

auxiliary verb *estar* and the gerund or present participle –that is, the verbal non-finite form ending in *-ndo*, as in *Ana está cantando* ‘Ana is singing’. Originally, this marker was part of a locative construction that indicated that an event held during a given reference interval at a specific location. This can be observed by the obligatory co-occurrence of locative expressions, usually between the auxiliary verb and the gerund, as it can be seen in (25), where the intervening locative construction *a las muelas* ‘at the mills’ can be found between the auxiliary and the non-finite form:

- (25) los siervos que **están** a las muelas **moliendo**
 the servants who be.PRS.3PL to the mills mill.GER
 ‘the servants who are at the mills milling’ [General Estoria I]

Over time, it has been observed (e.g., Torres Cacoullous 2012; Fuchs 2020, 2022) that the presence of a co-occurring locative expression decreases, and that the marker develops into an autonomous device to indicate an aspectual opposition with the simple present form: the former specializing in the expression of the *event-in-progress* reading, the latter restricting its use to *habitual* readings, as in (26):

- (26) comme **faze** el agua quando la **escalienta**
 how do.PRS.3SG the water when 3.SG.ACC.F heat.3SG
 ‘how the water does when s/he heats it’ [Calila et Dimna]

In this process, we see how *estar*’s presuppositional requirement changes the parameter of evaluation that is required: while a necessary location had to be present in the origins of the construction, at the time of the development of an aspectual opposition with the simple present form, the parameter of evaluation became not space, but time. The *event-in-progress* reading satisfies that presuppositional requirement almost by default: something that holds at the reference interval under consideration allows the implication that it did not hold before it, or that it will not hold after.

Moreover, the contingency of *estar* has an additional *cognitive* effect, that of creating an attentional focus on the prejacet. This focus of attention is part of the message that the speaker is conveying above and beyond the speaking act itself. It is stating: “pay attention to the situation that I am referring to” (see e.g., de Wit et al. 2020). In this way *estar* is enabling the speaker to call attention to their (the speaker’s) perspective. And it is this possibility that confers *estar* a communicative advantage over *ser*. We propose here that such an advantage is large enough that it offsets the additional cognitive cost of construal of the causal relation; that is, the construal of false alternatives that a felicitous processing of *estar* demands. However, this additional construal is facilitated when the context supports the building

of alternatives, thus making it easier for the hearer to arrive at the full conceptual representation that the verbal form conveys. Over time, an increase in frequency of use starts to “liberate” *estar* from this contextual requirement, as it can be seen in Mexican Altiplano Spanish (e.g., Sánchez-Alonso 2018; Fuchs 2020).

The main goal of a speaker when they engage in (linguistic) communication is of course to convey a message, to send some information from their mind to the hearer’s own. However, speakers’ intentions are not limited to *inform*, but also to produce certain effects on the addressee. In previous work, we have proposed that the main goal of the speaker is to achieve *perspective alignment*; that is, to align the hearer’s perspective to their own (Fuchs et al. 2020). This process has been modeled as an increase in Common Ground between speaker and addressee, reducing the amount of information that is not shared between them, and it basically amounts to making the worlds compatible with the hearer’s knowledge more like the words compatible with the speaker’s (see also Clark and Marshall 1981).

To achieve perspective alignment, and engage the addressee/comprehender to a greater degree in the information that is being conveyed by the linguistic signal, it is useful to increase the addressee’s attention to what is being said. Our claim here is that there are certain linguistic devices that by virtue of their conceptual structure help the speaker achieve this goal.

We have shown that using the Present Progressive marker in Spanish produces a greater degree of *perspective alignment* between speaker and hearer, in comparison to the use of the Simple Present form (Fuchs et al. 2020). Both of these linguistic devices are able to convey a Progressive meaning –that is, that an event overlaps or coincides with the reference interval–, but it seems that progressive markers are able to implicate an additional, non-temporal meaning: a meaning that catches the attention of the addressee. We claim that this meaning is based on the presuppositional component of the auxiliary in the progressive periphrasis, *estar*, and the contingency that it conveys, which is encoded in its conceptual structure.

With all these elements in place, we can address our original question: how does the conceptual basis of a lexicalized meaning carries in it the seed for *estar*’s encroachment? We have proposed that the roots of the encroachment are to be found in the locative meaning of *stare* when it was first recruited. Conceptually, *stare* has three properties: reference to space (and therefore world index), reference to coincidentalness, leading to contingency, and reference to manner, leading to salience of the predication. *Stare* underwent a dissociation of these properties thus allowing them to behave independently of each other. Specifically, once space was singled out, other indices of the same class could be added to the conceptual representation –e.g., time, world, agent –; these additions increased the number of possible circumstances of evaluation, which in turn increased the possible

contexts in which *estar* could appear felicitously. Once coincidentalness was singled out, it brought out the possibility of contingency, and once manner was singled out, it made salient an *explicit* situational reference, potentially contrasting with other possible situational references.

We argue that communicatively these elements act together to induce a kind of perspectival scale that runs from observations external to the speaker or ‘perspective neutral’ to those internal, subjectivized or ‘perspective specific’. When we map the various readings to this cline, we obtain the representation in Figure 3:

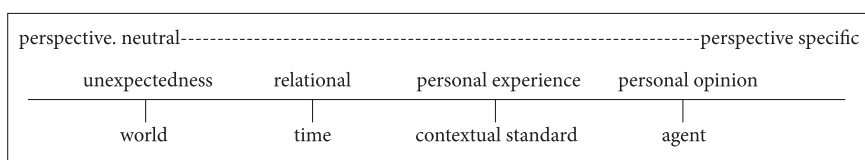


Figure 3. Perspective Alignment, the perspectival cline and inference distribution

Figure 3 shows a proposal for how degrees in perspectiveness, the *estar* readings by index, and the possible inferences that these readings can generate line up with each other. The argument is that once other indices entered *estar*'s conceptual representation, they opened the possibility for greater perspectival expression, motivated by the communicative need for *perspective alignment*. That process gave rise to the observed inferences, which reveal increased relativization to the speaker. We propose here that the inferences that the readings generate connect to this perspectival cline, and that this connection grants *estar* greater communicative value, giving rise to its expansion.

What propels the encroachment then? The possibility of expressing not only the truth of a proposition but also the perspective that the speaker takes on it, along a variety of circumstances of evaluation. This increases the informativity of *estar* and the periphrases that use it as an auxiliary verb, and therefore allows speakers to be more “economical” in their speech without losing in expressiveness. As more speakers in the speech community use it, the alternative construal becomes more cost effective, further pushing the marker to incorporate more indices of evaluation –e.g., to expand to a broader set of contexts of use. The domain within which this process of expansion takes place is the one conceptually closest: the domain of *ser*. Therein lies the inevitability of the encroachment observed.⁹

9. A related question concerns why children prefer *estar*. One way to approach this question is by appealing to this perspectival cline. Specifically, *estar* use aligns with the child's default perspectival setting making [+perspective] readings more child-world friendly than [-perspective]

7. Conclusions

We have argued for the hypothesis that *estar's* well-documented expansion over the domain of *ser* is rooted in *estar's* underlying conceptual structure and the communicative value that such conceptual structure ultimately provides to *estar's* use. This proposal thus models an analysis of a specific path of change that further supports the view in the literature that most if not all processes of linguistic semantic change are constrained by cognitive and communicative factors at play during language use (e.g., Traugott and Dasher 2002; Deo 2015; Fuchs 2020).

To this end, we have proposed a *conceptual analysis* of *estar's* meaning that connects it (a) to its lexicalized implementation based on the boundedness pre-supposition analysis, and (b) to the conceptual representation of Latin *stare*, *estar's* predecessor. We leverage both connections to support our proposed analysis not only regarding how, once recruited, *stare's* conceptual structure reconfigured to give rise to that of *estar's*, but also, and most crucially, with respect to how *estar's* conceptual structure can support the various index-related readings observed, and the inferences from these readings that ultimately endow *estar* with an important communicative value that helps in achieving *perspective alignment*.

The validity of our approach lies on the independent soundness of its sources of support: an independently validated empirical (acceptability judgments) and experimental (sentence processing) body of evidence from four dialects of Spanish, an independently motivated semantic analysis, an independently motivated approach to conceptual structure modeling, and an independently motivated communicative model within which *perspective alignment* is couched. Our proposal thus models an approach to meaning variation and change that is informed by multiple sources of evidence, and mutually constraining analyses of that evidence.

Interestingly, the proposal raises further questions regarding semantic diachronic paths. Specific to Spanish *estar*, it raises the question of the impact of lexical “competitors” in the dynamics of change: competitors such as *quedar* ‘fit’ as in *la falda le queda/está muy bien* ‘The skirt fits them well’, *ir* ‘to go’ as in *Esta casa nos va/está muy bien* ‘This house accommodates us nicely’ or *Ella va de*




ones. Even though children may not still have the experience that gives rise to the various indices, they have sensitivity to uses that refer to the here and now –[+perspective] uses–, uses that are always done with *estar* by adults. This constitutes one key source of positive evidence. So, as the child gains in life experience, they also learn that some *uses* of *estar* are more perspective neutral, and that is when adult use of *ser* is allowed to emerge; a process that takes place even during preadolescence (around 12 y.o). For details of the milestones in this developmental process and relevant experimental evidence, see Aveledo et al. (2022).

fontanero estos días ‘She works as a plumber these days,’ among others.¹⁰ It also raises questions about the *acquisition* of *estar* and the possible role of life experience that a context-dependence approach suggests (see footnote 9). The idea that our main proposal gives rise to is the possibility of a precise connection between falsifiable lexico-conceptual analyses, patterns of linguistic use, and communicative constraints that further connect those patterns to the non-linguistic cognitive system that supports them.

Acknowledgements



We would like to thank the editors, Isabel Pérez-Jiménez and Silvia Gumiel-Molina, for valuable feedback in the production of the manuscript. The insightful comments and suggestions of two anonymous reviewers were also crucial in helping us improve the quality of the article, and we thank them for that. Finally, we would like to extend our thanks to past and present members of the Language and Brain Lab at Yale Linguistics for encouragement and support while the ideas in this paper were developed. All errors and omissions remain, of course, our own.

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10. A reviewer notes that our analysis does not directly address why specific semantic classes associated with adjectives also appear to be relevant to the pattern of *estar* expansion. On this topic, see Gumiel-Molina, Moreno-Quibén and Pérez-Jiménez (this issue) and Mangialavori and Ausensi (this issue).

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Publication history

Date received: 13 September 2021

Date accepted: 25 June 2022

Published online: 2 November 2023